UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT



FORM APPROVED OMB NO. 1004-0137

Expires: July 31, 2010

UTU-01191

6. If Indian, Allottee or Tribe Name

5.	Lease	Serial	Nο
J.	Louise	Donu	± 10.

APPLICATION FOR PERMIT TO	DRILL OR REENTER	N/A
1a. Type of Work: X DRILL	REENTER	7. If Unit or CA Agreement, Name and No. 891008900A
1b. Type of Well: X Gas Well Other	Single Zone X Multiple 2	8. Lease Name and Well No. NBU 1022-04GT
2. Name of Operator		9. API Well No.
Kerr-McGee Oil & Gas O	Onshore, LP	43-047-40 191
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
P.O. Box 173779 Denver, CO 80217-3779	720.929.6226	Natural Buttes Field
4. Location of well (Report location clearly and In accordant Surface 1897 1861 633084 × SW NE Lat. At proposed prod. zone N/A 44264924	rdance with any State requirements. 39.98001 4 39.98009 Long109.441 -109.441429 NAD 27	11. Sec.,T.,R.,M.,or Blk.and Survey or Area Sec 4 T 10S R 22E
14. Distance in miles and direction from the nearest town of		12. Cou State
25.5 miles northeast of Ouray, Utah		Uintah Utah
15. Distance from proposed* location to nearest 1861	16. No. of acres in lease	17. Spacing Unit dedicated to this well
property or lease line, ft. (Also to nearest drlg. unit line, if any)	1041.78	40
18. Distance from proposed location*	19. Proposed Depth	20. BLM/ BIA Bond No. on file
to nearest well, drilling, completed, 60' applied for, on this lease, ft.	8850'	WYB000291
21. Elevations (Show whether DF. RT, GR, etc.)	22. Aproximate date work v	Esti vill start* mat
5070' GR	Upon Approval	10 days
	24. Attachments	
The following, completed in accordance with the requirem	ents of Onshore Oil and Gas Order	No. 1 shall be attached to this form:
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National For SUPO shall be filed with the appropriate Forest Service 	item 20 above). rest System Lar 5. Operator certifica	pecific information and/ or plans as may be required by
25. Signature	Name (Printed/ Typed) Kevin	McIntyre RECEIVED
Title Regulatory Analyst	<u> </u>	JUN 2 7 2008
Approved By \Signature	Name (Printed/ Typed)	DIV. OF OIL, GAS & MINING

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

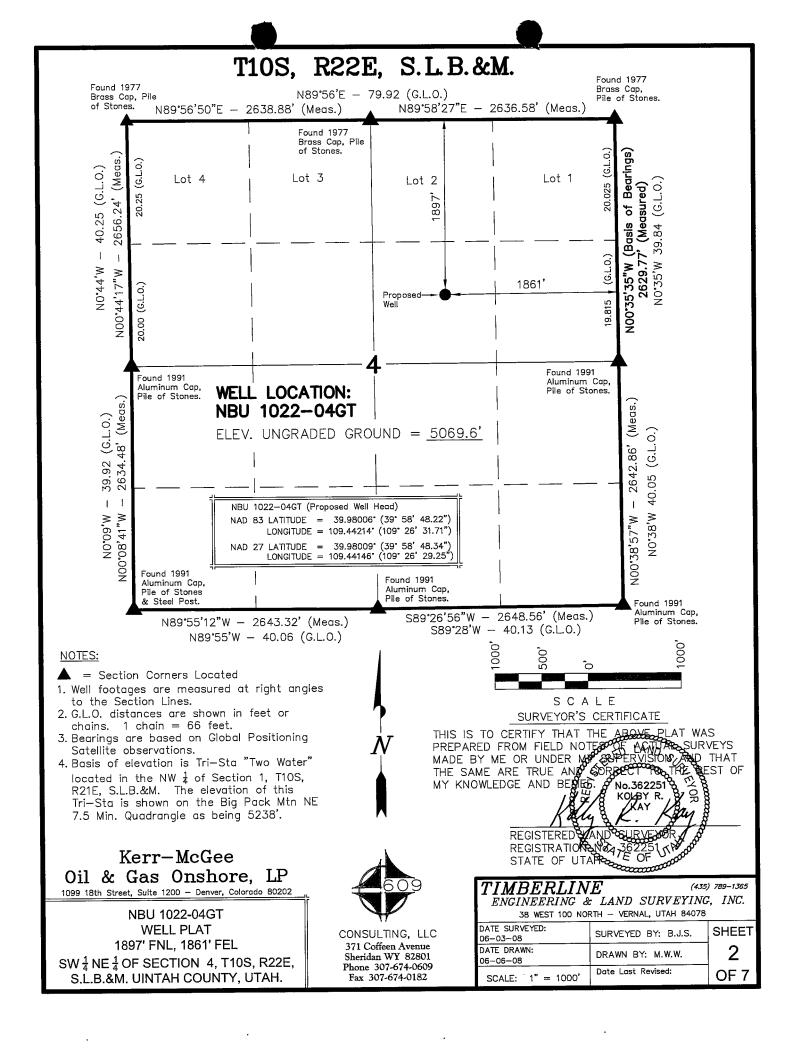
BRADLEY G. HILI

ENVIRONMENTAL MANAGER

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Title



NBU 1022-04GT SWNE Sec. 4, T10S,R22E UINTAH COUNTY, UTAH UTU-01191

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. <u>Estimated Tops of Important Geologic Markers:</u>

<u>Depth</u>
0- Surface
1215'
1499'
1977'
4349'
6785'
7666'
8288
8850'

2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Substance	<u>Formation</u>	<u>Depth</u>
	Green River	1215'
	Bird's Nest	1499'
	Mahogany	1977'
Gas	Wasatch	4349'
Gas	Mesaverde	6785'
Gas	MVU2	7666'
Gas	MVL1	8288'
Water	N/A	
Other Minerals	N/A	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

4. **Proposed Casing & Cementing Program:**

Please see the Natural Buttes Unit SOP.

5. <u>Drilling Fluids Program</u>:

Please see the Natural Buttes Unit SOP.

6. Evaluation Program:

Please see the Natural Buttes Unit SOP.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 8850° TD, approximately equals 5301 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3420 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

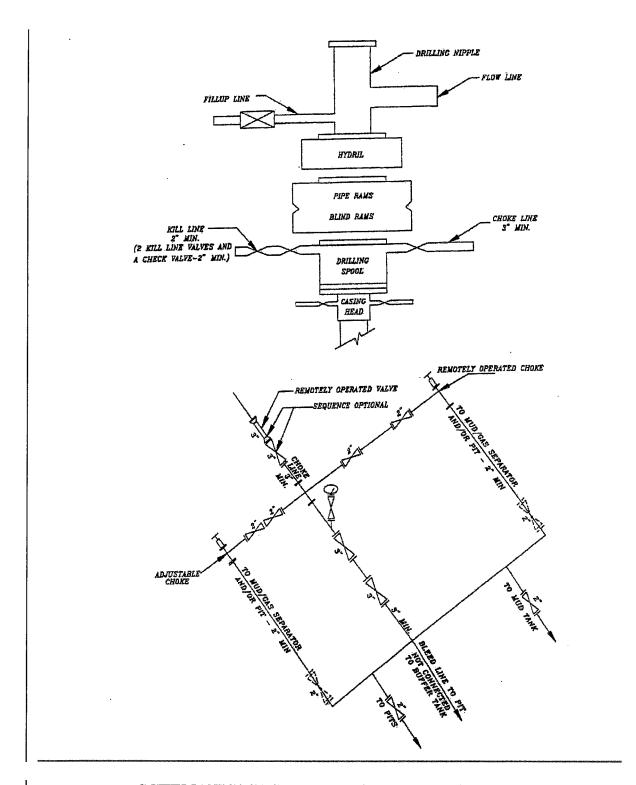
9. <u>Variances:</u>

Please see Natural Buttes Unit SOP. Please see Kerr McGee's sundry regarding variance request to Onshore Order #2 regarding Air drilling for surface casing.

10. Other Information:

Please see Natural Buttes Unit SOP.

EXHIBIT A



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

NBU 1022-04GT SWNE Sec. 4 ,T10S,R22E UINTAH COUNTY, UTAH UTU-01191

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. Existing Roads:

Refer to the attached location directions.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. Planned Access Roads:

No new access road is planned, as this is a twin location. Refer to Topo Map B.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

No new pipeline, as we will be utilizing the existing NBU #67 pipeline. No TOPO D attached.

Please see the Natural Buttes Unit SOP.

Variances to Best Management Practices (BMPs) Requested:

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Carlsbad Canyon Brown (2.5Y 6/2), a non-reflective earthtone.

Interim Surface Reclamation Plan:

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the

original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

5. <u>Location and Type of Water Supply:</u>

Please see the Natural Buttes SOP.

6. Source of Construction Materials:

Please see the Natural Buttes SOP.

7. Methods of Handling Waste Materials:

Please see the Natural Buttes SOP.

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E (Request is in lieu of filing Form 3160-5, after initial production).

8. Ancillary Facilities:

Please see the Natural Buttes SOP.

9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be resurveyed and a form 3160-5 will be submitted.

10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

upon reclamation of the pit the following seed mixture will be used. A total of 12 lbs/acre will be used if the seeds are drilled (24 lbs/acre if the seeds are broadcast). The per acre requirements for *drilled* seed are:

Crested Wheatgrass 12 lbs.

Operator shall call the BLM for the seed mixture when final reclamation occurs.

11. Surface/Mineral Ownership:

The well pad, access road, pipeline and mineral ownership are listed below:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

12. Stipulations

Wildlife Stipulations:

• Antelope Stipulations: No construction from May 15 through June 20.

Critical Soils Stipulations:

No construction when wet.

13. Other Information:

A Class III archaeological survey and a paleontological survey have been performed and will be submitted.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

14. <u>Lessee's or Operator's Representative & Certification</u>:

Kevin McIntyre Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP P.O. Box 173779 Denver, CO 80217-3779 (720) 929-6226 Randy Bayne Drilling Manager Kerr-McGee Oil & Gas Onshore LP 1368 South 1200 East Vernal, UT 84078 (435) 781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by BLM Nationwide Bond #WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

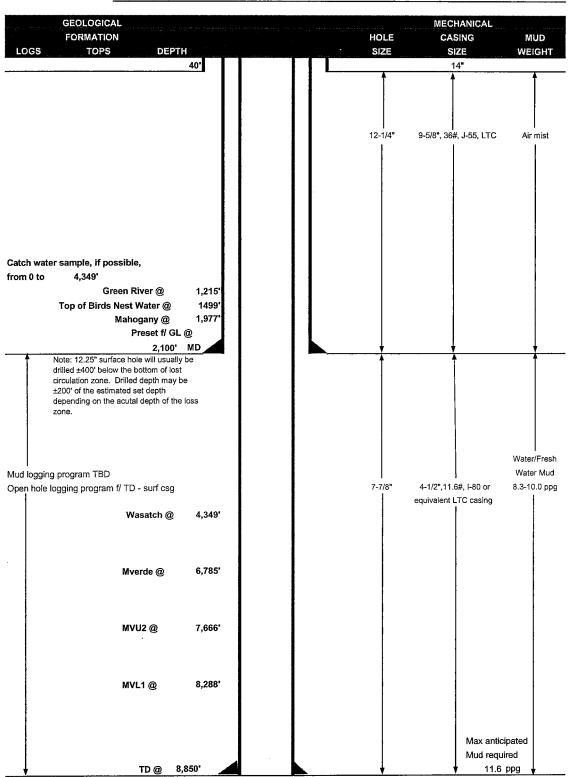
 Kevin McIntyre
 6/24/2008

 Date



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

KERR-McGEE OIL & GAS ONSHORE LP COMPANY NAME June 24, 2008 NBU 1022-04GT WELL NAME 8,850' MD/TVD FIELD COUNTY Uintah Natural Buttes STATE Utah **ELEVATION** 5,070' GL KB 5,085' SURFACE LOCATION SWNE 1897' FNL & 1861' FEL, SEC. 4, T10S, R22E Straight Hole 39.980090 Longitude: -109.441460 Latitude: OBJECTIVE ZONE(S) Wasatch/Mesaverde ADDITIONAL INFO Regulatory Agencies: BLM (SURF & MINERALS), UDOGM, Tri-County Health Dept.



CASING PROGRAM

							DESIGN FACT	ORS
	SIZE	INTERVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'	n kan ang paga	168014-1-1-188116-18111-1811	en en deserv	Hgrmadni divedeji	sen, fire on the increas	logger of the transport of the
			41744			3520	2020	453000
SURFACE	9-5/8"	0 to 2100	36.00	J-55	LTC	1.04	2.06	7.63
						7780	6350	201000
PRODUCTION	4-1/2"	0 to 8850	11.60	1-80	LTC	2.29	1.19	2.24
			. *					
		!			ł			

¹⁾ Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD =

11.6 ppg)

.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3420 psi

CEMENT PROGRAM

	The state of the same of the s	The second secon				
	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		+ .25 pps flocele	Y. Carlo			
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50	1	15.60	1.18
		+ 2% CaCl + .25 pps flocele				
TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to su	rface, opt	ion 2 will be	e utilized	
Option 2 LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11.00	3.82
		+.25 pps Flocele + 3% salt BWOC	arat eta eta Barradaka			
TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
		+ .25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
				VHUS H		eteri viiti
PRODUCTION LEAD	3,840'	Premium Lite II + 3% KCI + 0.25 pps	420	60%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,010'	50/50 Poz/G + 10% salt + 2% gel	1400	60%	14.30	1.31
		+.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE PRODUCTION	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record	on chart recorder &
tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to b	e equipped with upper
& lower kelly valves.	
Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.	
Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililized.	

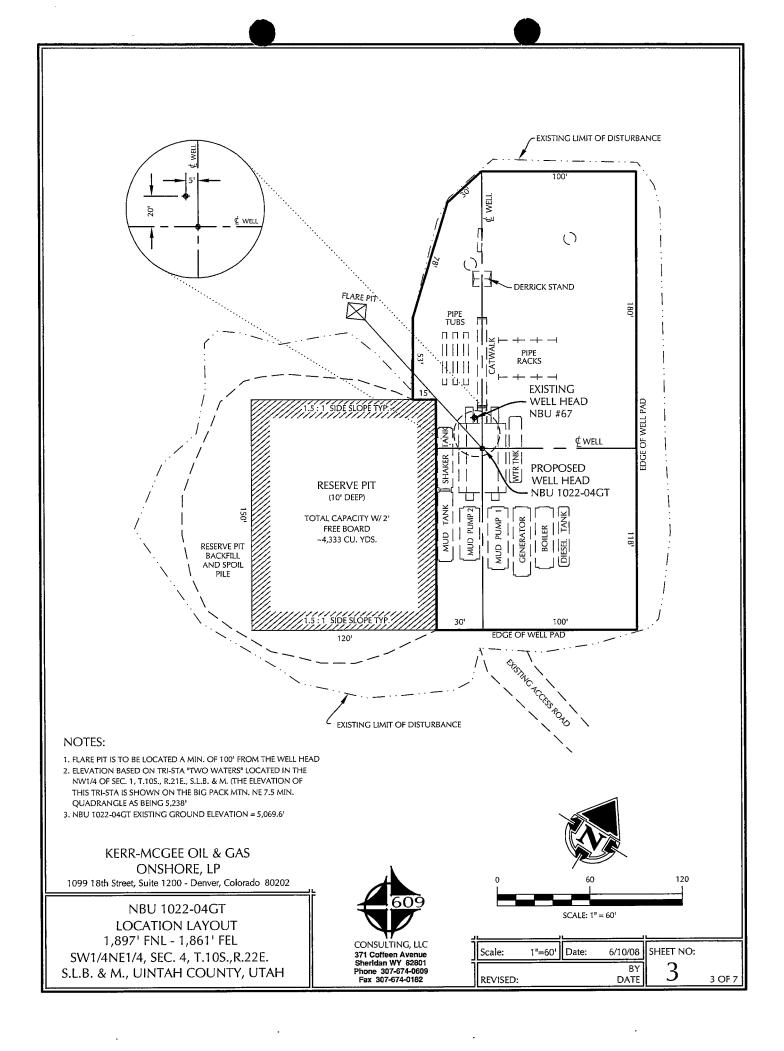
DRILLING ENGINEER:			DATE:	
	Brad Laney			
DRILLING SUPERINTENDENT:			DATE:	
	Randy Bayne	NBU 1022-04GT x/s	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

Kerr-McGee Oil & Gas Onshore, LP NBU #1022-04GT SECTION 4, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH, ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.2 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 16.5 MILES TO OURAY, UTAH; PROCEED FROM OURAY, UTAH, IN A SOUTHERLY DIRECTION ON STATE HIGHWAY 88 APPROXIMATELY 9.4 MILES TO THE JUNCTION OF STATE HIGHWAY 88 AND SEEP RIDGE ROAD; EXIT LEFT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND GLEN BENCH ROAD; EXIT LEFT AND PROCEED IN AN EASTERLY DIRECTION FOR APPROXIMATELY 5.1 MILES TO THE JUNCTION OF THIS ROAD AND BITTER CREEK ROAD; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION, GRADUALLY CHANGING TO SOUTHEASTERLY FOR APPROXIMATELY 4.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH: TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION, GRADUALLY CHANGING TO NORTHEASTERLY APPROXIMATELY 3.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION, GRADUALLY CHANGING TO NORTHERLY APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST: TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND THE PROPOSED NBU 1022-04GT WELL LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH, TO THE PROPOSED NBU 1022-04GT WELL LOCATION IS APPROXIMATELY 55.3 MILES.



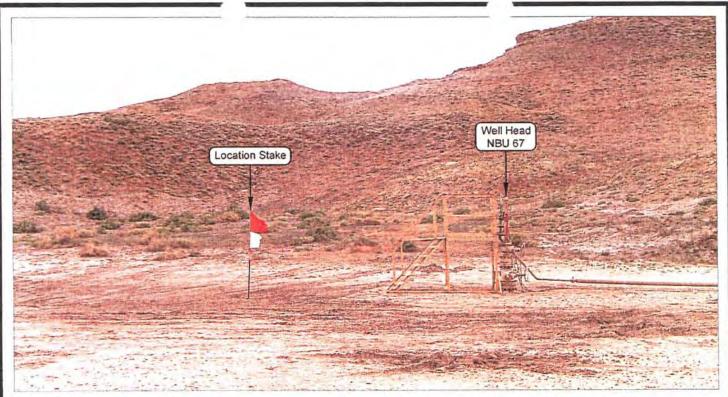


PHOTO VIEW: LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY

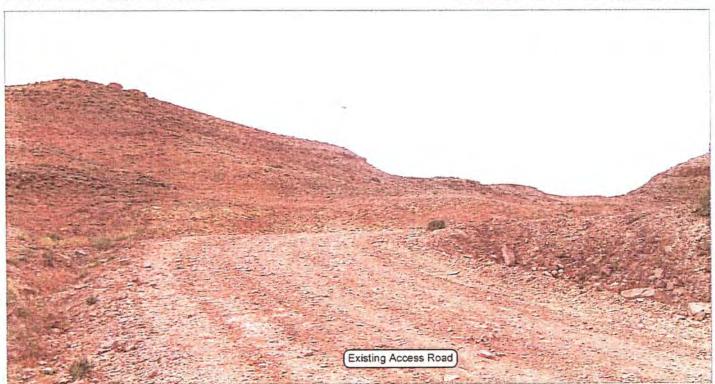


PHOTO VIEW: EXISTING ROAD

CAMERA ANGLE: NORTHWESTERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street, Suite 1200 - Denver, Colorado 80202

NBU 1022-04GT 1897' FNL, 1861' FEL SW 1 NE 1 OF SECTION 4, T10S, R22E, S.L.B.&M. UINTAH COUNTY, UTAH.

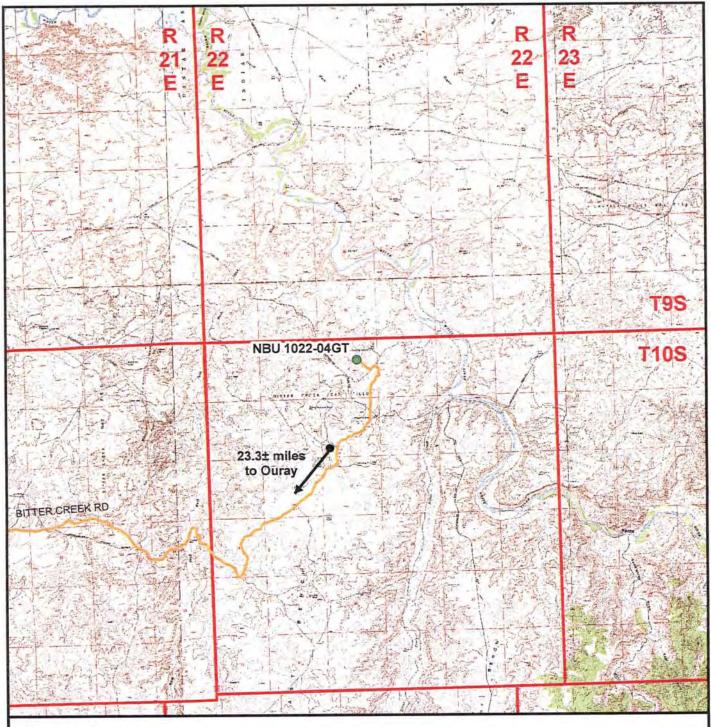


CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82501 Phone 307-674-0609 Fax 307-674-0182

LOCATION	PHOTOS	DATE TAKEN: 06-03-08	
LOCATION	PHOTOS	DATE DRAWN: 06-06-08	
TAKEN BY: B.J.S.	DRAWN BY: M.W.W.	REVISED: 06-13-08	

Timberline

(435) 789-1365 Engineering & Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078 SHEET OF 7



Legend

Proposed NBU 1022-04GT Well Location

Existing Access Roads

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street, Suite 1200 - Denver, Colorado 80202

NBU 1022-04GT Topo A 1897' FNL, 1861' FEL SW1/4 NE1/4, Section 4, T10S, R22E S.L.B.&M., Uintah County, Utah



CONSULTING, LLC

371 Coffeen Avenue Sheridan, WY 82801 Phone (307) 673-0036 Fax (307) 674-0182

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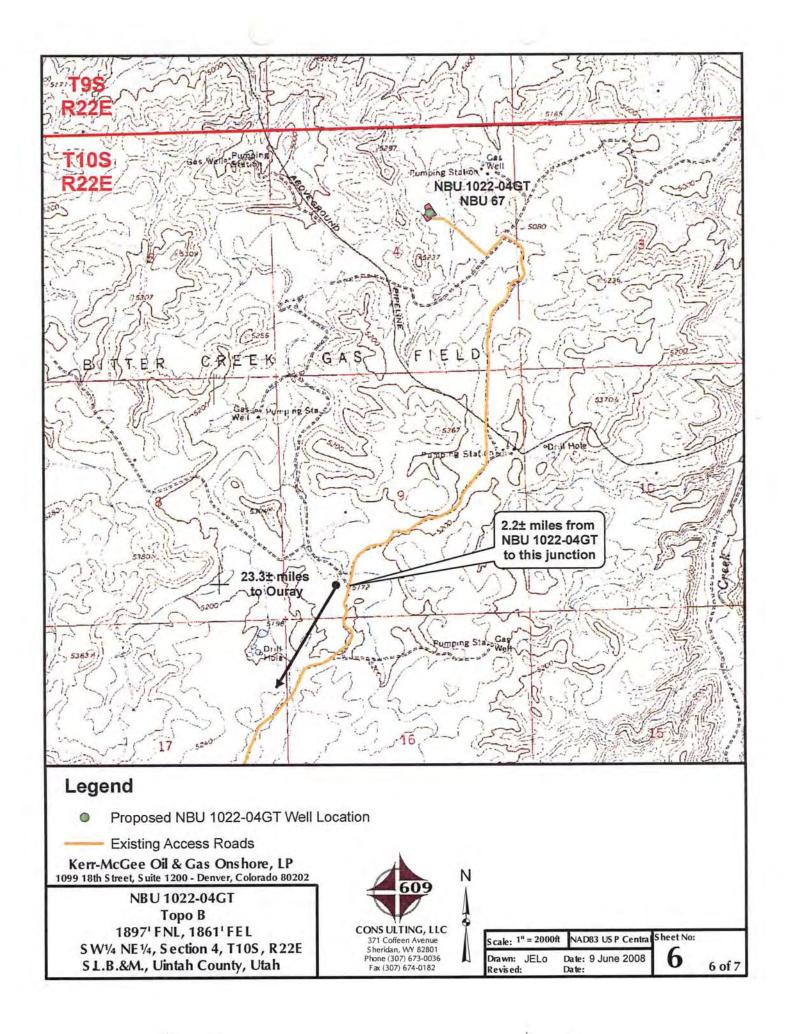
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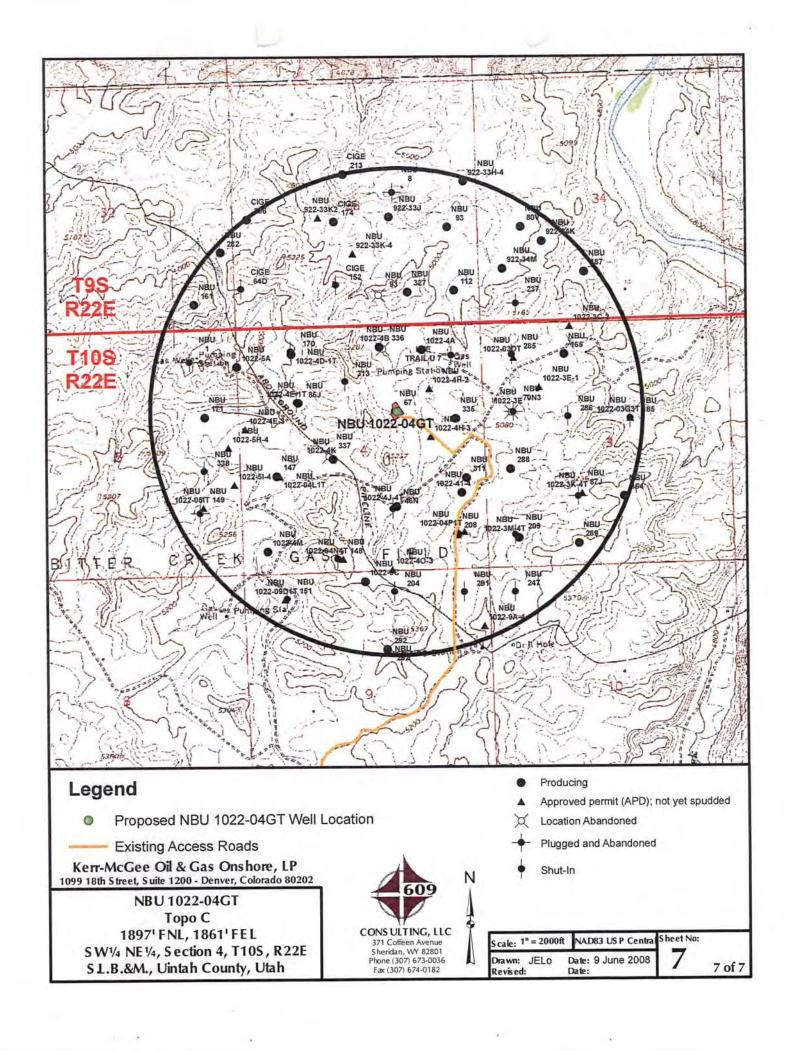
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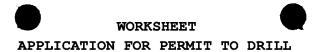
Date: 12 June 2008 Date:

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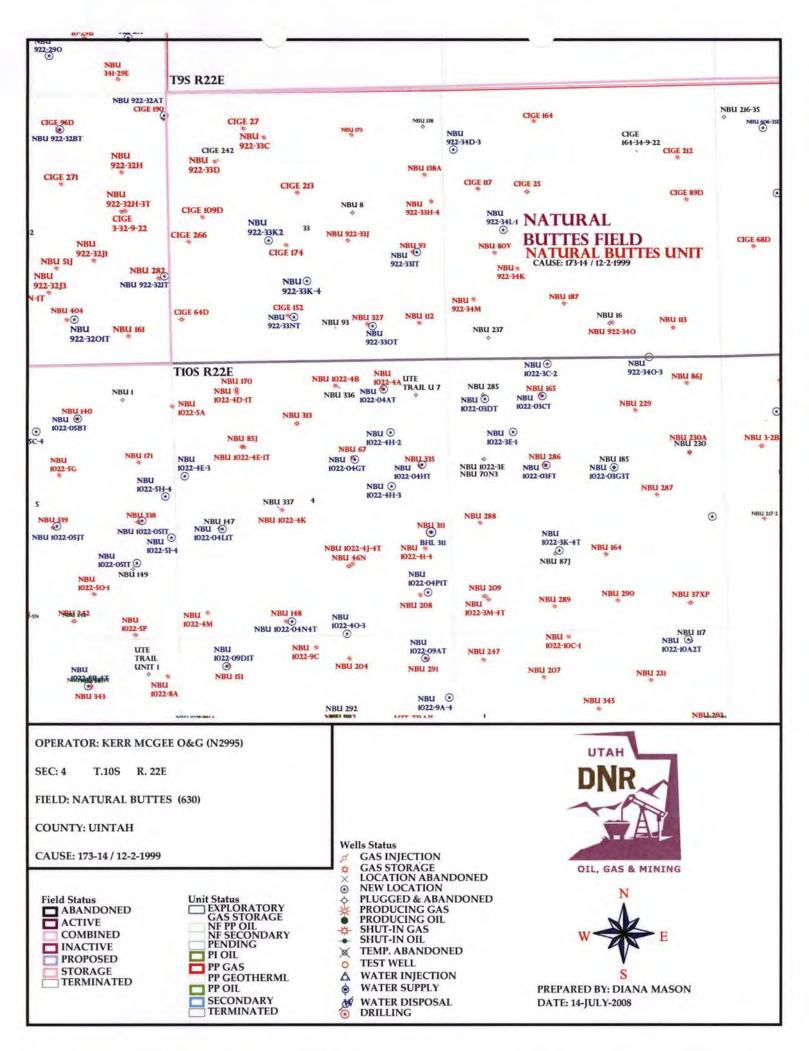
5 of 7







APD RECEIVED: 06/27/2008	API NO. ASSIG	SNED: 43-04	7-40191
WELL NAME: NBU 1022-04GT OPERATOR: KERR-MCGEE OIL & GAS (N2995) CONTACT: KEVIN MCINTYRE	PHONE NUMBER:	720-929-622	26
PROPOSED LOCATION:	INSPECT LOCATN	BY: /	/
SWNE 04 100S 220E	Tech Review	Initials	Date
SURFACE: 1897 FNL 1861 FEL BOTTOM: 1897 FNL 1861 FEL	Engineering		
COUNTY: UINTAH	Geology		
LATITUDE: 39.98001 LONGITUDE: -109.4414 UTM SURF EASTINGS: 633084 NORTHINGS: 4426492	Surface		
FIELD NAME: NATURAL BUTTES (630)			
LEASE TYPE: 1 - Federal LEASE NUMBER: UTU-01191 SURFACE OWNER: 1 - Federal	PROPOSED FORMA COALBED METHAN		MVD
✓ Plat	nit: NATURAL BUTTES R649-3-2. Gener Siting: 460 From Q R649-3-3. Excep Drilling Unit Board Cause No: Eff Date: Siting: 469-3-11. Dire	ral tr/Qtr & 920' ption	99 ncomm. Iro
COMMENTS:			
STIPULATIONS: 1 Ledi de Aggre 2- Oi S	ould diace		



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

July 15, 2008

Memorandum

To:

Assistant District Manager Minerals, Vernal District

From:

Michael Coulthard, Petroleum Engineer

Subject:

2008 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME

LOCATION

(Proposed PZ Wasatch/MesaVerde)

43-047-40184	NBŲ	921-30FT	Sec	30	T09S	R21E	1585	FNL	2614	FWL
43-047-40185	NBU	921-31BT	Sec	31	T09S	R21E	0670	FNL	2008	FEL
43-047-40170	NBU	921-27KT	Sec	27	T09S	R21E	1527	FSL	1821	FWL
43-047-40171	NBU	921-27MT	Sec	27	T09S	R21E	0634	FSL	0931	FWL
43-047-40172	NBU	921-27OT	Sec	27	T09S	R21E	0646	FSL	2211	FEL
43-047-40173	NBU	921-27HT	Sec	27	T09S	R21E	2025	FNL	0623	FEL
43-047-40174	NBU	921-27LT	Sec	27	T09S	R21E	1954	FSL	0641	FWL
43-047-40175	NBU	921-33K	Sec	33		R21E	2066	FSL	1926	FWL
43-047-40227	NBU	921-27C2D	Sec	27	T09S	R21E	0650	FNL	1730	FWL
43-047-40203	NBŰ	921-27D2DS BHL	Sec Sec		T09S T09S	R21E R21E	0660 0395	FNL FNL	1713 0350	FWL FWL
43-047-40202	NBU		Sec		T09S	R21E R21E	0640	FNL FNL	1747 0350	FWL
43-047-40201	NBU	921-27C2AS BHL	Sec Sec		T09S T09S	R21E R21E	0630 0300	FNL FNL	1765 1730	FWL FWL
43-047-40169 43-047-40176 43-047-40177 43-047-40178	NBU NBU NBU NBU	921-26IT 922-29NT 922-29KT 922-31BT	Sec Sec Sec	26 29 29 31	T09S T09S T09S T09S	R21E R22E R22E R22E	1964 0845 1795 0888	FSL FSL FSL FNL	0674 1627 1936 2191	FEL FWL FWL

43-047-40179	NBU	922-32ET	Sec	32	T09S	R22E	2477	FNL	0094	FWL
43-047-40186	NBU	922-330T	Sec	33	T09S	R22E	0692	FSL	1465	FEL
43-047-40187	NBU	922-33NT	Sec	33	T09S	R22E	0890	FSL	2291	FWL
43-047-40188	NBU	922-33IT	Sec	33	T09S	R22E	2115	FSL	0579	FEL
43-047-40191	NBU	1022-04GT	Sec	04	T10S	R22E	1897	FNL	1861	FEL
43-047-40189	NBU	922-35IT	Sec	35	T09S	R22E	2133	FSL	0627	FEL
43-047-40190	NBU	1022-01CT	Sec	01	T10S	R22E	0819	FNL	2106	FWL
43-047-40192	NBU	1022-08IT	Sec	80	T10S	R22E	1757	FSL	0323	FEL
43-047-40193	NBU	1022-08GT	Sec	08	T10S	R22E	2313	FNL	1922	FEL
43-047-40194	NBU	1022-09AT	Sec	09	T10S	R22E	0472	FNL	0582	FEL
43-047-40195	NBU	1022-10HT	Sec	10	T10S	R22E	1798	FNL	0297	FEL
43-047-40196	NBU	1022-10FT	Sec	10	T10S	R22E	2200	FNL	2094	FWL
43-047-40204	NBU	1022-32D1S	Sec	32	T10S	R22E	0205	FNL	2058	FWL
		\mathtt{BHL}	Sec	32	T10S	R22E	0270	FNL	1310	FWL
43-047-40205	NBU	1022-32D4AS	Sec	32	T10S	R22E	0198	FNL	2077	FWL
		BHL	Sec	32	T10S	R22E	0760	FNL	1180	FWL
43-047-40206	NBU	1022-32B3S	Sec	32	T10S	R22E	0185	FNL	2114	FWL
		BHL	Sec	32	T10S	R22E	1150	FNL	2130	FEL
43-047-40207	NBU	1022-32D4DS	Sec	32	T10S	R22E	0192	FNL	2096	FWL
		BHL	Sec	32	T10S	R22E	1240	FNL	1050	FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:7-15-08





MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA Division Director

July 16, 2008

Kerr-McGee Oil & Gas Onshore, LP P O Box 173779 Denver, CO 80217-3779

Re:

NBU 1022-04GT Well, 1897' FNL, 1861' FEL, SW NE, Sec. 4, T. 10 South, R. 22 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-40191.

Sincerely,

Gil Hunt

Associate Director

pab **Enclosures**

cc:

Uintah County Assessor

Bureau of Land Management, Vernal Office



Operator:	Kerr-McGee Oil & Gas Onshore, LP				
Well Name & Number	NBU 1022-	-04GT			
API Number:	43-047-401	.91			
Lease:	UTU-01191				
Location: SW NE_	Sec. 4	T. 10 South	R. 22 East		

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

• Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.

NOTICE OF APPROVAL

FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010

UNITED STATES

DEPARTMENT OF THE INTERIOR

AL FIELD OF Lease Serial No.

BUREAU OF LAND MA	NAGEME	VI JUN 1 6 2	008	UTU-01191
APPLICATION FOR PERMIT TO	DRILL Ô		UHUE	64 If Indian, Allottee or Tribe Name
ia. Type of Work: X DRILL C] reenter	CEPT OF THE BURBAU OF D	134 13	7. If Unit or CA Agreement, Name and No. MGAIT 891008900A
1b. Type of Well: X Gas Well Othe	r Singl	e Zone X Multiple	Zon	8. Lease Name and Well No. NBU 1022-04GT
2. Name of Operator				9. API Well No.
Kerr-McGee Oil & Gas	Onshore, L	p		43-047-40191
3a. Address		o. (include area code)		10. Field and Pool, or Exploratory
P.O. Box 173779 Denver, CO 80217-3779		720.929.6226]	Natural Buttes Field
4. Location of well (Report location clearly and In acce	ordance with a	ny State requirements.	.*)	11. Sec., T., R., M., or Blk. and Survey or Area
At surface 1897 1861 FNL FEL SW NE Lat At proposed prod. zone			146	Sec 4 T 10S R 22E
NA	NAI			<u> </u>
14. Distance in miles and direction from the nearest town	or post office	*	1	12. Cou State
25.5 miles northeast of Ouray, Utah				Uintah Utah
15. Distance from proposed* location to nearest	16. N	o. of acres in lease	17. 8	Spacing Unit dedicated to this well
property or lease line, ft. (Also to nearest drlg. unit line, if any)	1041.	78	40	
18. Distance from proposed location*	19. P	roposed Depth	20. I	BLM/ BIA Bond No. on file
to nearest well, drilling, completed, 60' applied for, on this lease, ft.		8850'	WYI	B000291
21. Elevations (Show whether DF, RT, GR, etc.)	22 A	proximate date work	will of	Esti
5070' GR		Approval	11111 30	10 days
30.70		tachments		10 days
The following, completed in accordance with the requirer	nents of Onsho	re Oil and Gas Order	No. 1	shall be attached to this form:
 Well plat certified by a registered surveyor. A Drilling Plan. 		4. Bond to cover the item 20 above).	ie ope	rations unless covered by existing bond on file(se
3. A Surface Use Plan (if the location is on National Fo		-		
SUPO shall be filed with the appropriate Forest Servi	ice Office).	6. Such other site s authorized office	-	c information and/or plans as may be required by
25. Signature	Name (Print	ed/Typed) Kevii	n McI	ntyre
Title Regulatory Analyst	l			
Approved By (Signature)	Name (Print	ed/Typed)		DEC 04 200
Fitle // Assistant Field Manager	10.00	MNAL FIELD (1 200 1 200 1 200
Application approval does not warrant or certify that the application	nt holds legal or	equitable title to those r	ights i	n the subject lease which would entitle the applicant to
onduct operations thereon. Conditions of approval, if any, are attached.				
File 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, itates any false, fictitious or fraudulent statements or representations.			- •	willfully to make to any top conent or agency of the
Continued on page 2)	3 0 0	and the state of t		DEC 0 9 2084 Instructions on page 2)
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UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No: API No: Kerr McGee Oil & Gas

NBU 1022-04GT 43-047-40191 Location: Lease No: Agreement: SWNE, Sec.4,T10S,R22E

UTU-01191 Natural Buttes

Title	Name	Office Phone Number	Cell Phone Number
Petroleum Engineer:	Matt Baker	(435) 781-4490	(435) 828-4470
Petroleum Engineer:	Michael Lee	(435) 781-4432	(435) 828-7875
Petroleum Engineer:	Ryan Angus	(435) 781-4430	(435) 828-7368
Supervisory Petroleum Technician:	Jamie Sparger	(435) 781-4502	(435) 828-3913
Supervisory NRS:	Karl Wright	(435) 781-4484	(100) 020 0010
NRS/Enviro Scientist:	Holly Villa	(435) 781-4404	(435) 828-3544
NRS/Enviro Scientist:	James Hereford	(435) 781-3412	(435) 828-3546
NRS/Enviro Scientist:	Chuck Macdonald	(435) 781-4441	(435) 828-7481
NRS/Enviro Scientist:	Dan Emmett	(435) 781-3414	(435) 828-4029
NRS/Enviro Scientist:	Paul Percival	(435) 781-4493	(435) 828-7381
NRS/Enviro Scientist:	Anna Figueroa	(435) 781-3407	(435) 828-3548
NRS/Enviro Scientist:	Verlyn Pindell	(435) 781-3402	(435) 828-3547
NRS/Enviro Scientist:	Nathan Packer	(435) 781-3405	(435) 828-3545
NRS/Enviro Scientist:	David Gordon	(435) 781-4424	(400) 020-0040

Fax: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	- Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	- Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	 Twenty-Four (24) hours prior to running casing and cementing all casing strings.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	 Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 7 Well: NBU 1022-04GT 12/1/2008

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

SITE SPECIFIC CONDITIONS OF APPROVAL

Mitigation Measures:

DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- Surface casing cement shall be brought up and into the surface. Top of Cmnt is to reach surf.
 For the Surface casing cementing program (operator's specified Option 1 where well does not
 circulate water), operator is required to pump additional cement beyond the stated amounts in
 application.
- Production casing cement shall be brought up and into the surface casing. Production casing minimum cement top is 1400 ft. The minimum cement top is approximately 0700 ft above the surface casing shoe.
 - Cmnt Top (TOC) standard will place cmnt behind casing across formation lost circulation zone, Birds Nest Zone.
 - COA specification fulfills operators performance standard stated in APD (where operators toc is calc'd with an excess to reach surface).
- Operator is to notify BLM Vernal Field Office and active gilsonite mining operator (or lease holder) located within a 2 mile radius, 48 hours prior to pad explosives blasting. Well is not close to gilsonite vein, but on trend to gilisonite vein deposits.
- A copy of Kerr McGee's Standard Operating Practices (SOP version: dated 7/17/08 and approved 7/28/08) shall be on location.
- Drilling plan specifics and practices are referenced in the Kerr McGee Oil & Gas Standard
 Operating Procedures (SOP version: July 28, 2008). The operators drilling plan items 3 to 9
 reference the SOP. Kerr McGee shall adhere to the referenced requirements in the SOP.
 Kerr McGee and their contractors shall adhere to all Oil and Gas rules and requirements listed
 in the Code of Federal Regulations and all Federal Onshore Oil and Gas Orders except where
 variances have been granted.
- Covering air/gas drilling operations, requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.
- A Gamma Ray well Log shall be run from the well Total Depth to the surface.
 A copy of the Gamma Ray well Log shall be submitted to the BLM Vernal Field Office.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.

Page 4 of 7 Well: NBU 1022-04GT 12/1/2008

- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the
 daily drilling report. Components shall be operated and tested as required by Onshore Oil &
 Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be
 performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be
 reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water
 is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM
 Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.

Page 5 of 7 Well: NBU 1022-04GT 12/1/2008

 There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 7 Well: NBU 1022-04GT 12/1/2008

OPERATING REQUIREMENT REMINDERS:

• All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - o Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or

Page 7 of 7 Well: NBU 1022-04GT 12/1/2008

data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field
 Office Petroleum Engineers will be provided with a date and time for the initial meter calibration
 and all future meter proving schedules. A copy of the meter calibration reports shall be
 submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API
 standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All
 measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted
 to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs
 first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be
 adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively
 sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior
 approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30
 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given
 before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

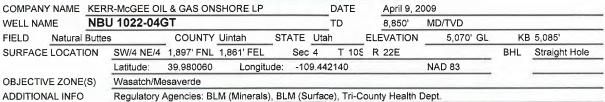
FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

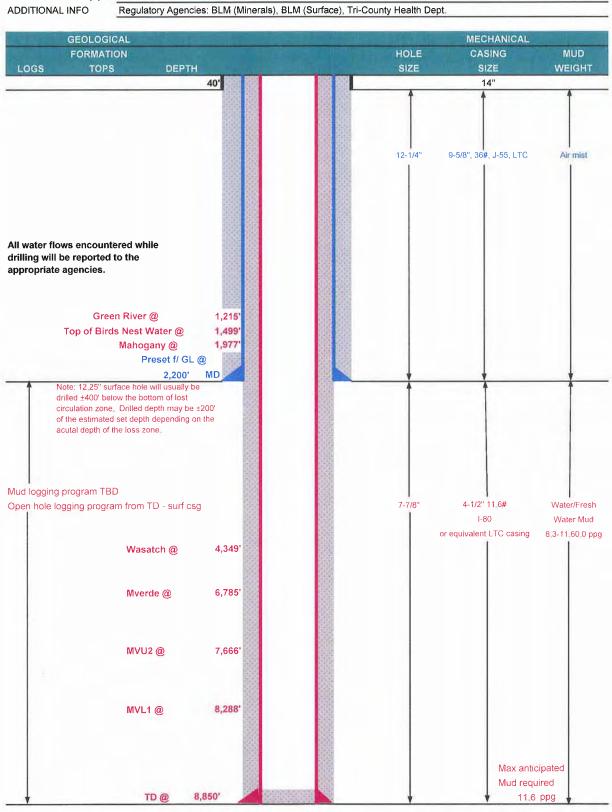
Expires: July 31, 201	0
5. LEASE SERIAL NO.	
UTU01191	

SUNDRY NOTICES AND REPORTS ON WELLS 6. IF INDIAN, ALLOTTEE OR TRIBE NAME Do not use this form for proposals to drill, or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals. 7. IF UNIT OR CA/AGREEMENT, NAME AND/OR NO. SUBMIT IN TRIPLICATE 891008900A 1 TYPE OF WELL 8. WELL NAME AND NO. Oil Well Gas Well Other: NBU 1022-04GT 9. API WELL NO. 2. NAME OF OPERATOR 43-047-40191 Kerr-McGee Oil & Gas Onshore LP 3. ADDRESS AND TELEPHONE NO. CONTACT: Danielle Piernot 10. FIELD AND POOL, OR EXPLORATORY AREA PHONE: 720-929-6156 1099 18th Street, Suite 1800 danielle.piernot@anadarko.com 80202 Natural Buttes Denver, CO 4. LOCATION OF WELL (Footage, T, R, M, or Survey Description) 11. COUNTY OR PARISH, STATE 1,897' FNL 1,861' FEL SWNE Sec. 4 T10S R22E Uintah, Utah Lat. 39.98006 Long. -109.44214 NAD 83 12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Notice of Intent Acidize Water Shut-Off Deepen Production (start/resume) Reclamation Well Integrity Alter Casing Fracture Treat Subsequent Report Casing Repair **New Construction** Recomplete Other Change Plans Plug and Abandon Temporarily Abandon Final Abandonment Notice Convert to Injection Plug Back Water Disposal 13. Describe Proposed or completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with the BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a form 3160-4 must be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.) An APD for this location was submitted to the BLM and UDOGM and was assigned API 49-047-40191. UDOGM approved their portion of the APD on July 16, 2008 and the BLM approved their portion of the APD on December 4, 2008. Kerr-McGee respectfully requests to change the surface casing for this well due to revised drilling practices. RECEIVED The surface casing is changing FROM: 2,100' APR 1 5 2009 TO: 2,200' Please the see the attached drilling diagram for additional details. All other information remains the QETOW, GAS & MINING COPY SENT TO OPERATOR Thank you. 14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) initials: Danielle Piernot Title Regulatory Analyst Signature Date April 13, 2009 SPACE FOR FEDERAL OR STATE OFFICE USE Approved by Conditions of approval, if any, are attached. Approval of this notice Office does not warrant or certify that the applicant holds legal or equitable Federal Approval Of This title to those rights in the subject lease which would entitle the Action Is Necessary applicant to conduct operations thereon.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM







KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

									DESIGN FACTO	ORS
	SIZE	INT	TERVA	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"		0-40'							
								3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2200	36.00	J-55	LTC	1.04	1.96	7.28
1								7,780	6,350	201,000
PRODUCTION	4-1/2"	0	to	8850	11.60	1-80	LTC	2.29	1.19	2.24
1										

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD =

11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3,291 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD =

11.6 ppg)

0.59 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 5,238 psi

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		+ 25 pps flocele				
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
		+ 2% CaCl + 25 pps flocele				
TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15,60	1.18
SURFACE		NOTE: If well will circulate water to s	urface, opt	ion 2 will b	e utilized	
Option 2 LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11 00	3 82
		+ 25 pps Flocele + 3% salt BWOC				
TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
		+ .25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1,18
PRODUCTION LEAD	3,840'	Premium Lite II + 3% KCI + 0,25 pps	390	60%	11.00	3,38
		celloflake + 5 pps gilsonite + 10% gel		11		
		+ 0.5% extender				
TAIL	5,010'	50/50 Poz/G + 10% sait + 2% gel	1400	60%	14.30	1,31
		+ 1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.

PRODUCTION

Float shoe, 1 jt, float collar Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililized.

DRILLING ENGINEER:		DATE:	
	John Huycke / Grant Schluender		
DRILLING SUPERINTENDENT:		DATE:	
	John Merkel / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

	STATE OF UTAH		FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191		
SUND	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for propobottom-hole depth, reenter plu DRILL form for such proposals.	sals to drill new wells, significantly deepen ex ugged wells, or to drill horizontal laterals. Use	isting wells below current APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-04GT
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047401910000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1897 FNL 1861 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI	IP, RANGE, MERIDIAN: Township: 10.0S Range: 22.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
,	_ ACIDIZE _	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start: 7/10/2009	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
7/10/2009	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	■ NEW CONSTRUCTION
Jacob Mont Completion	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	☐ WATER SHUTOFF ☐	SI TA STATUS EXTENSION	✓ APD EXTENSION
1	WILDCAT WELL DETERMINATION	OTHER	OTHER:
Kerr-McGee Oil & Ga extension to this A	DIMPLETED OPERATIONS. Clearly show all pertin as Onshore, L.P. (Kerr-McGee) r PD for the maximum time allow with any questions and/or comm	respectfully requests an ed. Please contact the nents. Thank you.	Approved by the Utah Division of Oil, Gas and Mining ate: July 13, 2009 y:
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst	
SIGNATURE	\20 3 2 3 -0130	DATE	
N/A		7/7/2009	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047401910000

API: 43047401910000 **Well Name:** NBU 1022-04GT

Location: 1897 FNL 1861 FEL QTR SWNE SEC 04 TWNP 100S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 7/16/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

he revision. Following is a checkness of some items related to the application, which should be verified.
 If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No
 Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No
 Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No
 Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? Yes No
• Has the approved source of water for drilling changed? 🔘 Yes 📵 No
 Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No
• Is bonding still in place, which covers this proposed well? • Yes • No Utah Division of Oil, Gas and Mining

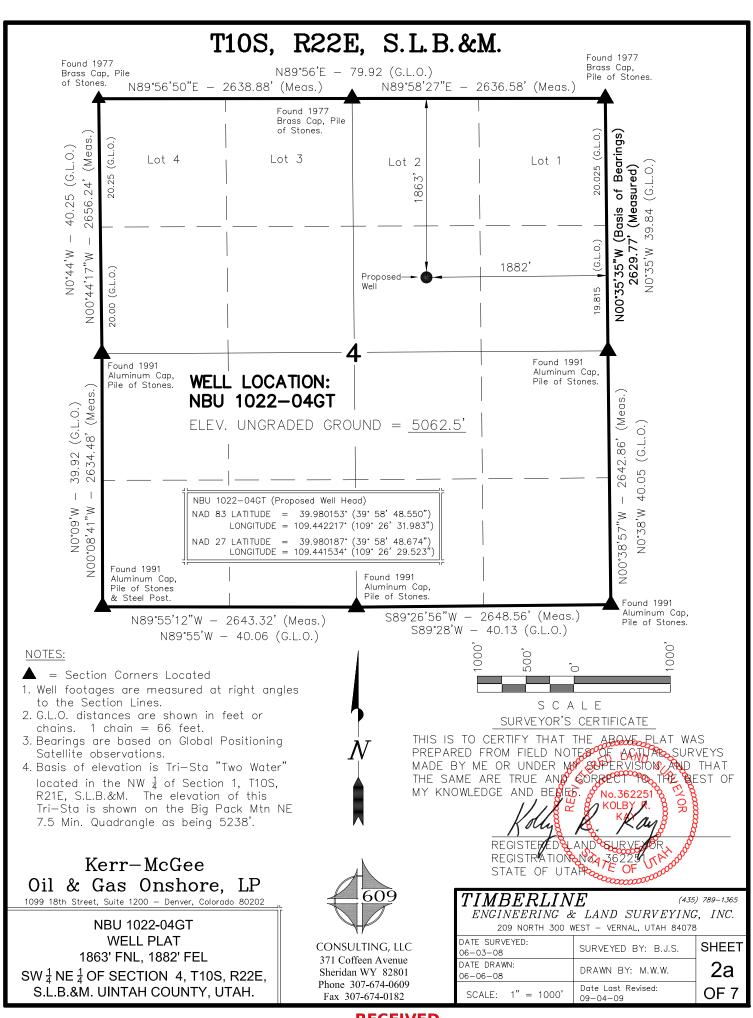
Signature: Danielle Piernot **Date:** 7/7/2009

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHOR July 13, 2009

Bv:

API Well No: 43047401910000

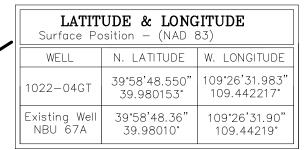
	STATE OF UTAH		FORM 9			
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191			
SUND	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
	sals to drill new wells, significantly deepen e ugged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-04GT			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047401910000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	itreet, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1897 FNL 1861 FEL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SWNE Section: 04	IP, RANGE, MERIDIAN: · Township: 10.0S Range: 22.0E Meridian: S		STATE: UTAH			
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
Approximate date work will start:	✓ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME			
9/18/2009	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK			
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
☐ DRILLING REPORT	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
Report Date:	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:			
12 DESCRIBE PROPOSED OR CO	NMDI FTFD OPFDATIONS. Clearly show all perti	nent details including dates, denths, v	olumes etc			
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests to change the surface location of this well for drilling purposes. The surface location is changing FROM: 1897' FNL 1861' FEL TO: 1863' FNL 1882' FEL. All other information as originally submitted remains the same. No additional surface disturbance from that amount approved in the original APD is anticipated. If you have any questions, please contact the undersigned. Thank you. Date: September 23, 2009 By:						
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 9/14/2009				

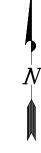


WELL PAD INTERFERENCE PLAT

NBU 1022-04GT

BASIS OF BEARINGS IS THE EAST LINE OF THE NE 1/4 OF SECTION 4, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°35'35"W.





LATITUDE & LONGITUDE Surface Position — (NAD 27)				
WELL	N. LATITUDE	W. LONGITUDE		
1022-04GT	39°58'48.674" 39.980187°	109°26'29.523" 109.441534°		
Existing Well NBU 67A	39°58'48.48" 39.98013°	109°26'29.44" 109.44151°		

NBU 1022-04GT Az= 161.56667° 20.7'-EXISTING WELL NBU 67A &



Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

NBU 1022-04GT LOCATED IN SECTION 4, T10S, R22E, S.L.B.&M. UINTAH COUNTY, UTAH.



CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

SURFACE FOOTAGES:

NBU 1022-04GT 1863' FNL & 1882' FEL

NBU 67A (Existing Well Head) 1883' FNL & 1876' FEL

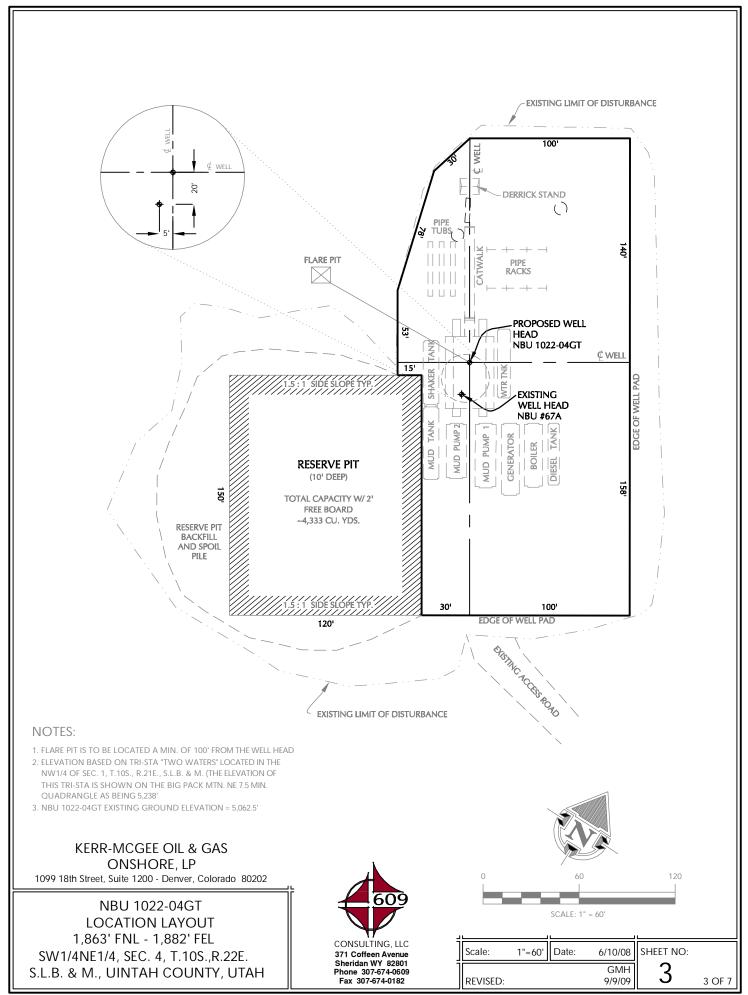
DATE SURVEYED: 06-03-08	SURVEYED BY: B.J.S.
DATE DRAWN: 11-18-08	DRAWN BY: M.W.W.
	REVISED: 09-04-09

Timberline

209 NORTH 300 WEST

(435) 789-1365 Engineering & Land Surveying, Inc. VERNAL, UTAH 84078

SHEET 2b OF 7



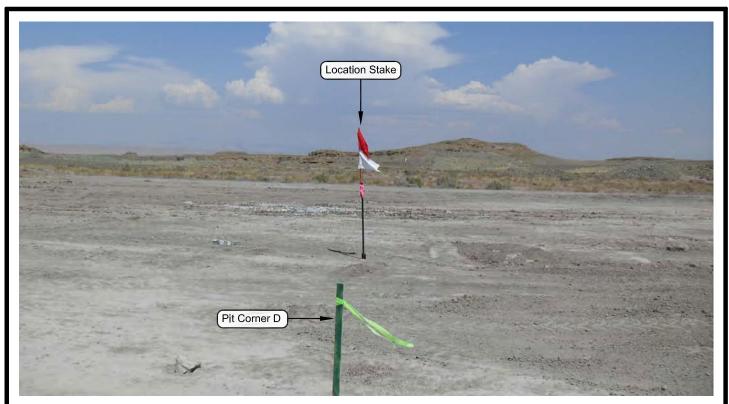


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO VIEW: EXISTING ROAD

CAMERA ANGLE: NORTHWESTERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street, Suite 1200 - Denver, Colorado 80202

NBU 1022-04GT 1863' FNL, 1882' FEL SW $\frac{1}{4}$ NE $\frac{1}{4}$ OF SECTION 4, T10S, R22E, S.L.B.&M. UINTAH COUNTY, UTAH.



CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

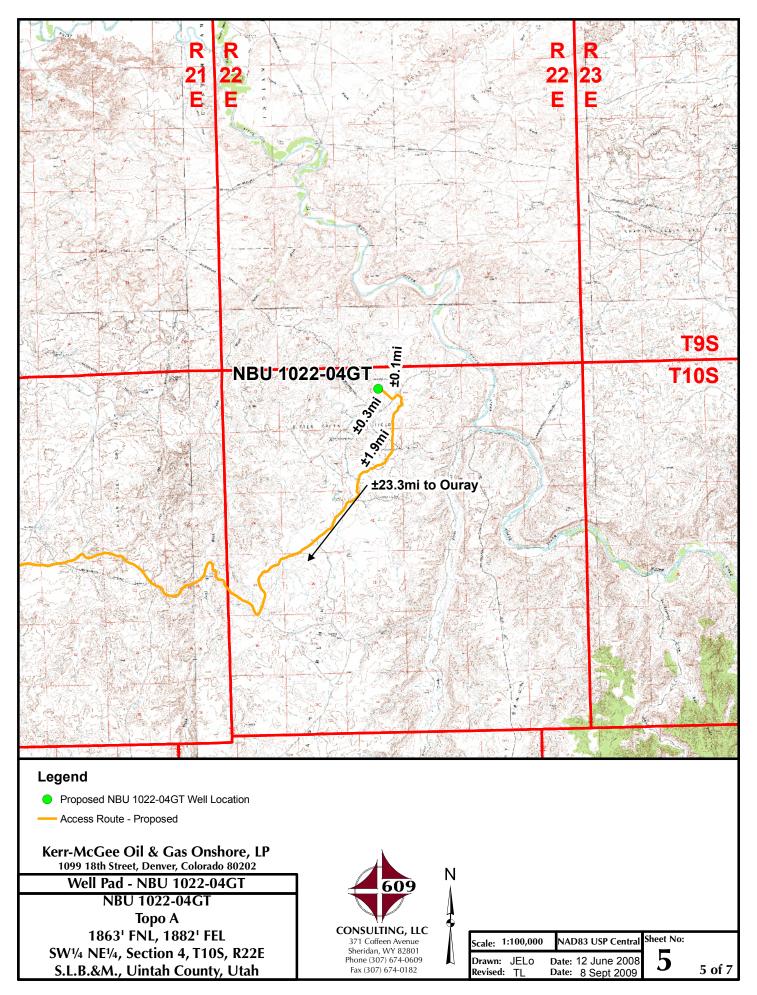
LOCATION	PHOTOS	DATE TAKEN: 06-03-08		
LOCATION	1 110 105	DATE DRAWN: 06-06-08		
TAKEN BY: B.J.S.	DRAWN BY: M.W.W.	REVISED: 09-04-09		

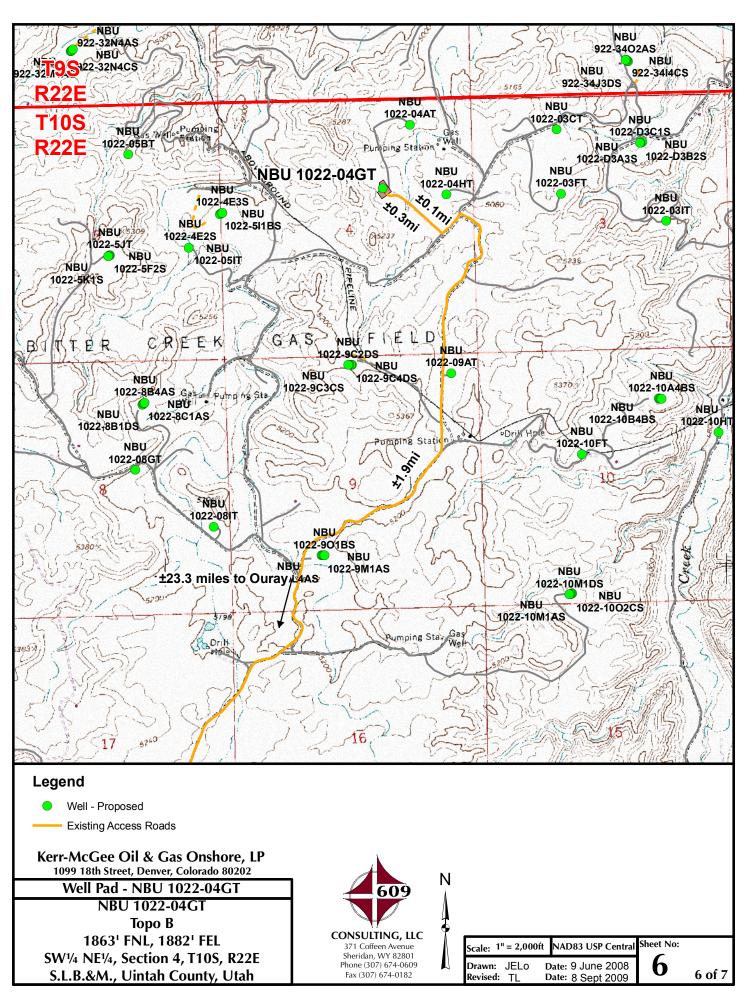
Timberline

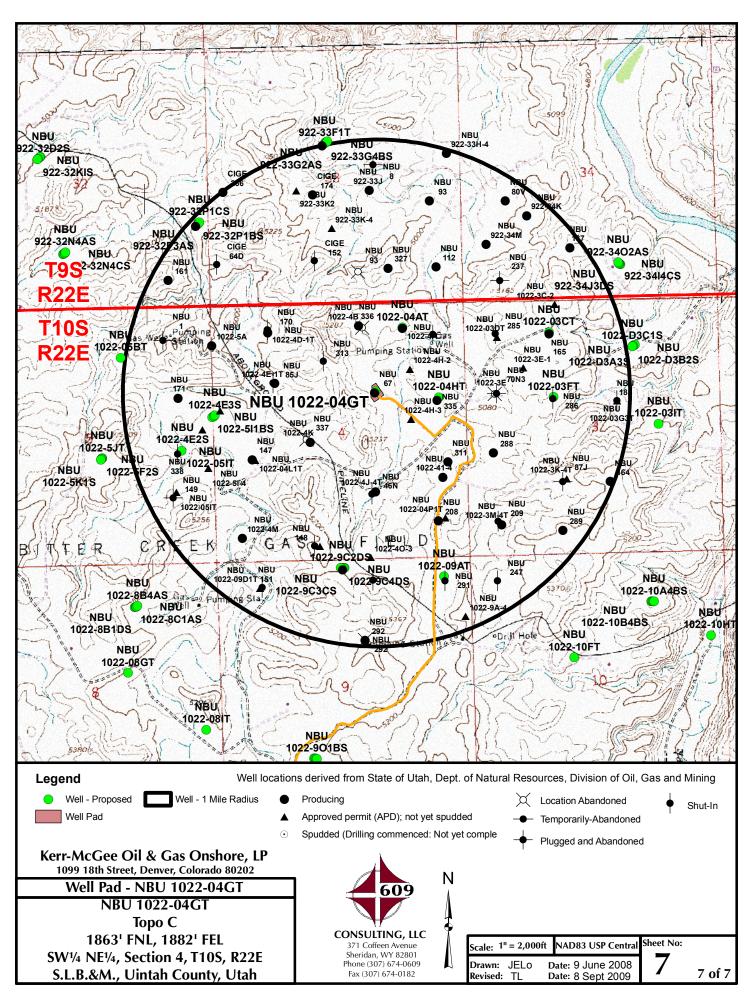
209 NORTH 300 WEST

Engineering & Land Surveying, Inc. VERNAL, UTAH 84078

SHEET 4 OF 7







Kerr-McGee Oil & Gas Onshore, LP NBU #1022-04GT SECTION 4, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH, ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.2 MILES TO THE JUNCTION OF STATE HIGHWAY 88: EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 16.5 MILES TO OURAY, UTAH; PROCEED FROM OURAY. UTAH, IN A SOUTHERLY DIRECTION ON STATE HIGHWAY 88 APPROXIMATELY 9.4 MILES TO THE JUNCTION OF STATE HIGHWAY 88 AND SEEP RIDGE ROAD; EXIT LEFT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND GLEN BENCH ROAD; EXIT LEFT AND PROCEED IN AN EASTERLY DIRECTION FOR APPROXIMATELY 5.1 MILES TO THE JUNCTION OF THIS ROAD AND BITTER CREEK ROAD: TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION, GRADUALLY CHANGING TO SOUTHEASTERLY FOR APPROXIMATELY 4.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION, GRADUALLY CHANGING TO NORTHEASTERLY APPROXIMATELY 3.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION, GRADUALLY CHANGING TO NORTHERLY APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN LEFT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 0.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST: TURN RIGHT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND THE PROPOSED NBU 1022-04GT WELL LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH, TO THE PROPOSED NBU 1022-04GT WELL LOCATION IS APPROXIMATELY 55.3 MILES.

NBU 1022-04GT

Surface: 1,863' FNL 1,882' FEL (SW/4NE/4) Sec. 4 T10S R22E

> Uintah, Utah Mineral Lease: UTU 01191

ONSHORE ORDER NO. 1

DRILLING PROGRAM REVISED

1. – 2. Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	Resource
Uinta	0 – Surface	
Green River	1,215'	
Birds Nest	1,499'	Water
Mahogany	1,977'	Water
Wasatch	4,349'	Gas
Mesaverde	6,785'	Gas
MVU2	7,666'	Gas
MVL1	8,288'	Gas
TD	8 850'	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 8,850' TD, approximately equals 5,238 psi (calculated at 0.59 psi/foot).

R	E	CE	ľ	V	Έ	D	1

Maximum anticipated surface pressure equals approximately 3,291 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster

sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). The air rig operation utilizes a 5M BOPE when drilling. This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

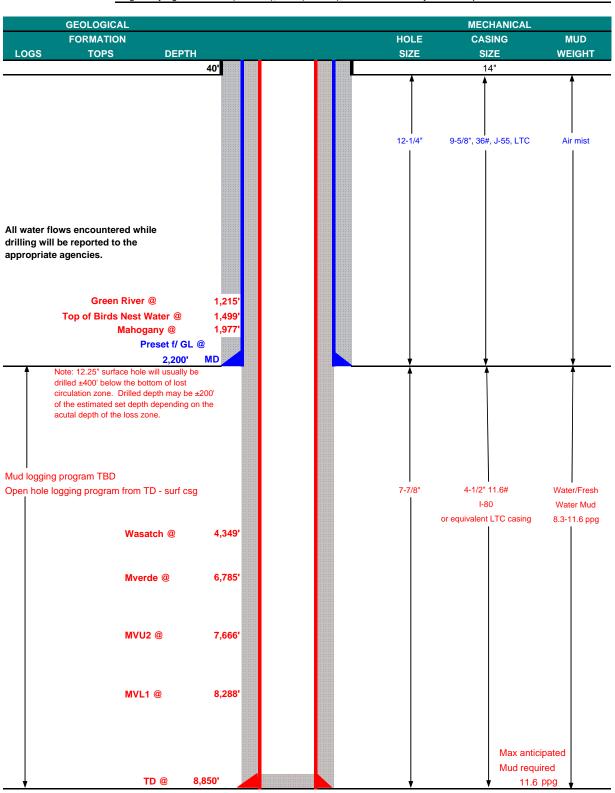
10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP					DATE		Septemb	per 14, 2009			
WELL NAME NBU 1022-04GT					TD		8,850'	MD/TVD			
FIELD	Natural Buttes	3	COUNTY	Uintah	STATE	Utah	_	FINISH	HED ELEVATION_	5,063	3'
SURFACE	LOCATION	SW/4 NE/4	1,863' FNL	1,882' FEL	Sec	4 T 10	S R	22E		BHL	Straight Hole
		Latitude:	39.980153	Longitu	de: -10	9.442217			NAD 83		
OBJECTIV	E ZONE(S)	Wasatch/Me	saverde								
ADDITIONAL INFO Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.											





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

									DESIGN FACT	ORS
	SIZE	INT	ERVAI	7	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2200	36.00	J-55	LTC	1.04	1.96	7.28
								7,780	6,350	201,000
PRODUCTION	4-1/2"	0	to	8850	11.60	I-80	LTC	2.29	1.19	2.24

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csq point-(0.22 psi/ft-partial evac gradient x TVD of next csq point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

0.22 psi/ft = gradient for partially evac wellbore (Burst Assumptions: TD = 11.6 ppg) (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3,291 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

0.59 psi/ft = bottomhole gradient (Burst Assumptions: TD = 11.6 ppg)

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 5,238 psi

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		+ .25 pps flocele				
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
		+ 2% CaCl + .25 pps flocele				
TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to su	ırface, opt	ion 2 will be	e utilized	
Option 2 LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11.00	3.82
		+.25 pps Flocele + 3% salt BWOC				
TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
		+ .25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PROPUSTION	0.040	Descrives Lite II + 20/ KOL + 0.05 and	000	000/	44.00	0.00
PRODUCTION LEAD	3,840'	Premium Lite II + 3% KCI + 0.25 pps	390	60%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,010'	50/50 Poz/G + 10% salt + 2% gel	1400	60%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

ei i	В		10	
SU	7	-	10	_

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.

PRODUCTION

Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

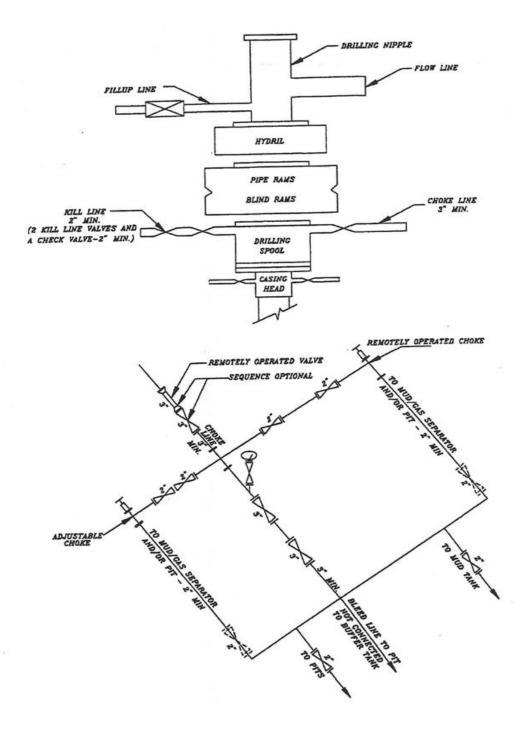
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Drop Totco surveys every 2000'.	Maximum allowable hole angle	is 5 degrees.

	Most rigs have PVT Systems	for mud monitoring. If no PVT is available, visual monitoring	g will be utililzed.	
DRILLING	ENGINEER:		DATE:	
		John Huycke / Emile Goodwin		
DRILLING	SUPERINTENDENT:		DATE:	
		John Merkel / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A NBU 1022-04GT



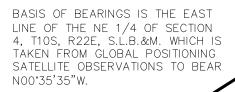
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

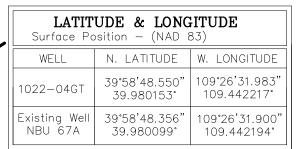
RECEIVED

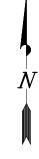
DEPARTMENT OF NUMBER. DEPARTMENT OF NUMBER ASSOURCES DIVISION OF OIL, GAS, AND MINING SUNDRY NOTICE SAID REPORTS ON WELLS Co not use this from for proposite by drill mow wells, significantly despen seeding wells below current bottom-hold depth, seeher species of significant seems. Use APPLIATION FOR PERMITTON DEPARTMENT OF WELL Gas Well SUNDRY, WELL MARK and NUMBER. TYPE OF WELL CARDINGES OF OPERATOR: CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION **NOTICE OF INTERNATION COMMENCE TRANSPORTED IN COMMENCE TRANSPORTED IN COMMENCE TO SHAPE AND ADDRESS OF OPERATOR COMMENCE TO SHAPE AND ADDRESS OF OPERATOR COMMENCE TO SHAPE AND ADDRESS OF OPERATOR COMMENT. **NOTICE OF INTERNATION OF WELL CONTOC INTERNATION OF WELL TO STREAM							
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Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, receiver plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO PUBLIC From Fore plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO PUBLIC From Fore Well Care Well Care Well 1022 Wel			G	I .			
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A ADDRES OF OPERATOR: J. ADDRESS OF OPERATOR: P.O. BOX 173779 1999 18th Street, Suite 600, Denver, CO, 80217 3779 A LOCATION OF WELL 1863 TNI 1825 FEL CTRIV/GR. SECTION, TOWNSHIP, RANGE, MERIDIAN: QRT/QRT. SECTION, TOWNSHIP, RANGE, MERIDIAN: QRT/QRT. SWINE Section: 04 Township: 10.05 Range: 22.06 Meridian: S TYPE OF SUBMISSION TYPE OF ACTION ACIDIZE ALTER CASING ACIDIZE ALTER CASING ACIDIZE ALTER CASING ACIDIZE ALTER CASING CHAMGE WELL STATUS ORGENICATION ORGENICA							
F.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 720 929-6007 Ext NATIVE		HORE, L.P.					
TYPE OF SUBMISSION							
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION ACIDIZE	FOOTAGES AT SURFACE:						
TYPE OF SUBMISSION TYPE OF ACTION ACIDIZE							
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CHANGE TO PREVIOUS PLANS	TYPE OF SUBMISSION		TYPE OF ACTION				
Approximate date work will start: G/8/2010		ACIDIZE	ALTER CASING	☐ CASING REPAIR			
COMMINGLE PRODUCING FORMATIONS CONVERT WELL TYPE		☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME			
Date of Work Completion: OPERATOR CHANGE		☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE			
Date of Work Completion: operator change	SUBSEQUENT DEDORT	☐ DEEPEN ☐	FRACTURE TREAT	☐ NEW CONSTRUCTION			
SPUD REPORT Date of Spud: PRODUCTION START OR RESUME RECLAMATION OF WELL SITE RECOMPLETE DIFFERENT FORMATION SIDETRACK TO REPAIR WELL TEMPORARY ABANDON WATER DISPOSAL WATER D		OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
SPUD REPORT Date of Spud:							
DRILLING REPORT WATER SHUTOFF SI TA STATUS EXTENSION APD EXTENSION APP EXTENSION							
□ DRILLING REPORT Report Date: □ WATER SHUTOFF □ SI TA STATUS EXTENSION □ APD EXTENSION □ OTHER: Revised Pad layout 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) respectfully requests to revise the pad layout for this location to show an increased distance from the well head to the pit. There will be no additional surface disturbance due to this change. Please see the attached revised pad design pages for additional details. All other information remains the same. Please contact the undersigned with any questions and/or comments. Thank you. NAME (PLEASE PRINT) Danielle Piernot TITLE Regulatory Analyst TITLE Regulatory Analyst SIGNATURE DATE	Date of Spud.						
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Danielle Piernot 720 929-6156 Regulatory Analyst SIGNATURE DATE	Kerr-McGee Oil & (revise the pad layout well head to the pit this change. Please s details. All othe	Gas Onshore LP (Kerr-McGee) rest for this location to show an increst. There will be no additional surface the attached revised pad design information remains the same.	spectfully requests to eased distance from the ace disturbance due to ign pages for additional Please contact the nents. Thank you.	Accepted by the Utah Division of Oil, Gas and Mining			
SIGNATURE DATE							
N/O	I .	,	DATE				

WELL PAD INTERFERENCE PLAT

NBU 1022-04GT







LATITUDE & LONGITUDE Surface Position — (NAD 27)								
WELL	N. LATITUDE	W. LONGITUDE						
1022-04GT	39°58'48.674" 39.980187°	109°26'29.523" 109.441534°						
Existing Well NBU 67A	39°58′48.480″ 39.980133°	109°26'29.440" 109.441511°						

NBU 1022-04GT Az= 161.56667° 20.7'-EXISTING WELL NBU 67A



SURFACE FOOTAGES:

NBU 1022-04GT 1863' FNL & 1882' FEL

NBU 67A (Existing Well Head) 1883' FNL & 1876' FEL

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

NBU 1022-04GT LOCATED IN SECTION 4, T10S, R22E, S.L.B.&M. UINTAH COUNTY, UTAH.



CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

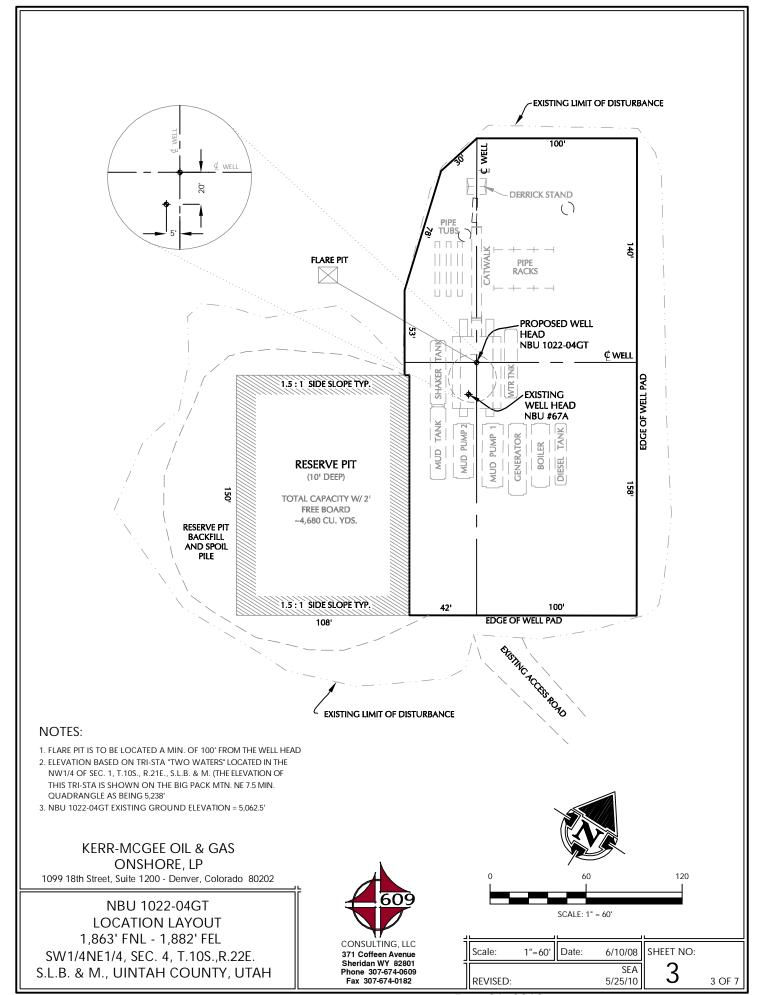
DATE SURVEYED: 06-03-08	SURVEYED BY: B.J.S.
DATE DRAWN: 11-18-08	DRAWN BY: M.W.W.
	REVISED: 05-25-10 M.W.W.

Timberline

209 NORTH 300 WEST

(435) 789-1365 Engineering & Land Surveying, Inc. VERNAL, UTAH 84078

SHEET 2b OF 7

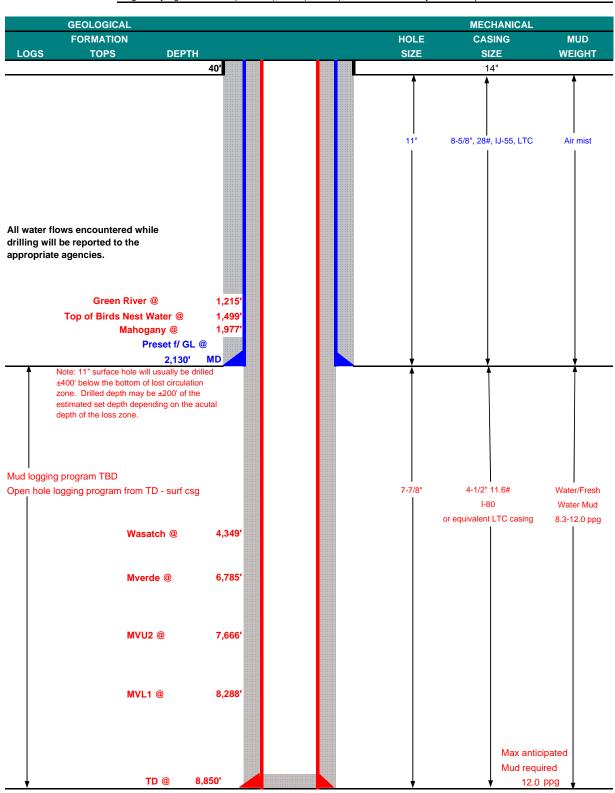


	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9
	DIVISION OF OIL, GAS, AND MININ	NG	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191
SUND	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for propo bottom-hole depth, reenter plu DRILL form for such proposals	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-04GT		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047401910000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1863 FNL 1882 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	IP, RANGE, MERIDIAN: Township: 10.0S Range: 22.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE I	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	☐ ACIDIZE ✓	ALTER CASING	CASING REPAIR
✓ NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
6/21/2010	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion.	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER:
Kerr-McGee Oil & C change the surface Additionally, Kerr-N well due to a revise cemented it's entire program for additional contact the unders	COMPLETED OPERATIONS. Clearly show all pertine Gas Onshore LP (Kerr-McGee) recasing size for this well from FROM AcGee requests to change the ceed drilling procedure. The produce length to the surface. Please seal details. All other information resigned with any questions and/or	spectfully requests to OM: 9-5/8" TO: 8-5/8". To: 8-5/	Accepted by the Utah Division of Oil, Gas and Mining
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst	
SIGNATURE N/A		DATE 6/14/2010	



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KER	R-McGEE OI	-McGEE OIL & GAS ONSHORE LP DATE Jur						June 14, 2010			
WELL NAME NB	U 1022-040	ST				TD	8,8	50'	MD/TVD		
FIELD Natural Butte	S	COUNTY	Uintah	STAT	Utah		F	INISH	IED ELEVATION_	5,063	1
SURFACE LOCATION	SW/4 NE/4	1,863' FNL	1,882' FEL	S	ec 4	T 10S	R 22E	=		BHL	Straight Hole
	Latitude:	39.980153	Longitu	ıde: -	09.442	217			NAD 83		
OBJECTIVE ZONE(S)	Wasatch/Me	esaverde									
ADDITIONAL INFO	Regulatory	Agencies: BL	M (Minerals)	, BLM (Surface), UDOG	M Tri-C	County	/ Health Dept.		





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

									DESIGN FACT	ORS
	SIZE	IN	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"		0-40'							
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2130	28.00	IJ-55	LTC	0.95	1.89	5.78
								7,780	6,350	201,000
PRODUCTION	4-1/2"	0	to	8850	11.60	I-80	LTC	2.18	1.15	2.24

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

D.F. = 2.53

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.0 ppg)

0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3,475 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

12.0 ppg)

(Burst Assumptions: TD =

0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 5,422 psi

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		+ .25 pps flocele				
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	40		15.60	1.18
		+ 2% CaCl + .25 pps flocele				
TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to su	ırface, opt	ion 2 will be	e utilized	
Option 2 LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	140	35%	11.00	3.82
		+.25 pps Flocele + 3% salt BWOC				
TAIL	500	Premium cmt + 2% CaCl	150	35%	15.60	1.18
		+ .25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
	0.040	D 1 1 1 1 1 2 2 1 2 2 2 2 2 2 2 2 2 2 2			44.00	
PRODUCTION LEAD	3,840'	Premium Lite II + 3% KCl + 0.25 pps	290	20%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,010'	50/50 Poz/G + 10% salt + 2% gel	1,050	20%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.

PRODUCTION

Float shoe, 1 it, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

DRILLING SUPERINTENDENT:

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Drop Totco surveys every 2000'.	Maximum allowable	hole angle is 5	dearees

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

DRILLING ENGINEER:		DATE:	
	John Huycke / Emile Goodwin		

DATE:

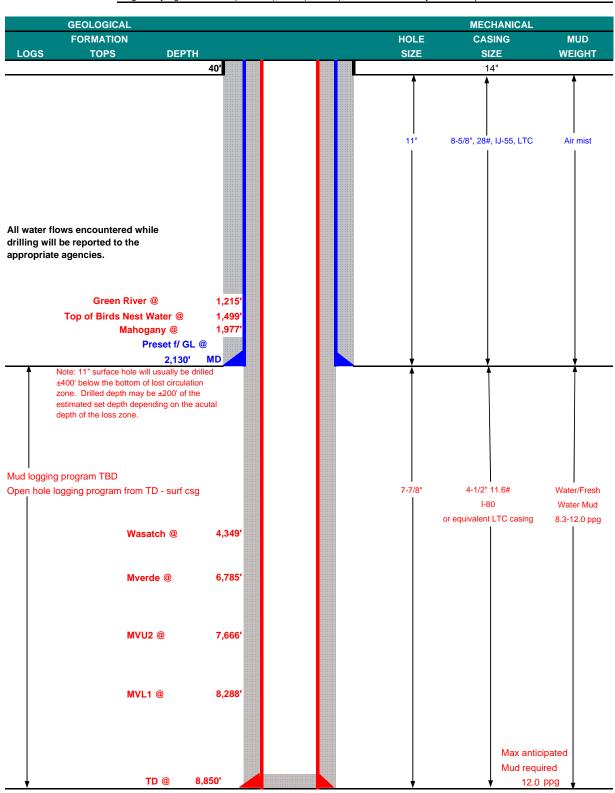
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Do not use this form for propo bottom-hole depth, reenter plu DRILL form for such proposals	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-04GT		
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11. CHE	CK APPROPRIATE BOXES TO INDICATE I	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	☐ ACIDIZE ✓	ALTER CASING	CASING REPAIR
✓ NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
6/21/2010	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
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NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst	
SIGNATURE N/A		DATE 6/14/2010	



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KER	R-McGEE OI	-McGEE OIL & GAS ONSHORE LP DATE Jur						June 14, 2010			
WELL NAME NB	U 1022-040	ST				TD	8,8	50'	MD/TVD		
FIELD Natural Butte	S	COUNTY	Uintah	STAT	Utah		F	INISH	IED ELEVATION_	5,063	1
SURFACE LOCATION	SW/4 NE/4	1,863' FNL	1,882' FEL	S	ec 4	T 10S	R 22E	=		BHL	Straight Hole
	Latitude:	39.980153	Longitu	ıde: -	09.442	217			NAD 83		
OBJECTIVE ZONE(S)	Wasatch/Me	esaverde									
ADDITIONAL INFO	Regulatory	Agencies: BL	M (Minerals)	, BLM (Surface), UDOG	M Tri-C	County	/ Health Dept.		





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

									DESIGN FACT	ORS
	SIZE	IN	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
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								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2130	28.00	IJ-55	LTC	0.95	1.89	5.78
								7,780	6,350	201,000
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- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.0 ppg)

0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3,475 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

12.0 ppg)

(Burst Assumptions: TD =

0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 5,422 psi

CEMENT PROGRAM

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Option 1		+ .25 pps flocele				
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	40		15.60	1.18
		+ 2% CaCl + .25 pps flocele				
TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to su	ırface, opt	ion 2 will be	e utilized	
Option 2 LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	140	35%	11.00	3.82
		+.25 pps Flocele + 3% salt BWOC				
TAIL	500	Premium cmt + 2% CaCl	150	35%	15.60	1.18
		+ .25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
	0.040	D 1 1 1 1 1 2 2 1 2 2 2 2 2 2 2 2 2 2 2			44.00	
PRODUCTION LEAD	3,840'	Premium Lite II + 3% KCl + 0.25 pps	290	20%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,010'	50/50 Poz/G + 10% salt + 2% gel	1,050	20%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.

PRODUCTION

Float shoe, 1 it, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

DRILLING SUPERINTENDENT:

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Drop Totco surveys every 2000'.	Maximum allowable	hole angle is 5	dearees

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

DRILLING ENGINEER:		DATE:	
	John Huycke / Emile Goodwin		

DATE:

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Com	pany: KER	R-McGEE OII	L& GAS ON	SHORE, L.	P
Well Name:		NBU 1022-04	IGT		
Api No:	43-047-40191	Lease Ty	pe:	<u>FEDERA</u>	L
Section 04	_Township_108	Range 22E	County	UINTAF	<u> </u>
Drilling Cont	ractorPI	ETE MARTIN	DRLG	RIG #	BUCKET
SPUDDED) :				
]	Date0	5/16/2010			
-	Гіте <u>1</u>	0:00 PM			
	How D	RY			
Drilling will	Commence:				
Reported by _		JAMES (GOBER		
Telephone #		(435) 828-	7024		
Date (06/17/2010	Signed C	CHD		

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM						
Operator:	KERR McGEE OIL & GAS ON	SHORE LP	Operator Account Number:	N 2995		
Address:	P.O. Box 173779					
	city DENVER		- 			
	state CO	zip 80217	Phone Number	(720) 929-6100		

Weil 1

API Number	Well	Name	QQ	Sec	Twp	Rng	County
4304740191	NBU 1022	2-4GT	SWNE	SWNE 4 10S		22E	UINTAH
Action Code	Current Entity Number	New Entity Number	s	Spud Date			ty Assignment fective Date
B	99999	2900	6	6/16/201	0	7/	15/10
Comments: MIRU PETE MARTIN BUCKET RIG. WSm V SPUD WELL LOCATION ON 6/16/2010 AT 10:00 HRS.							

Well 2

Well I	Name	QQ	Sec	Twp	Rng	County
Current Entity Number	New Entity Number	s	pud Da	te		ty Assignment fective Date
				······································		
	Current Entity	· · · · · · · · · · · · · · · · · · ·	Current Entity New Entity S	Current Entity New Entity Spud Date	Current Entity New Entity Spud Date	Current Entity New Entity Spud Date Entit

Well 3

API Number	Well I	Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:			1				

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to AMO WED
- E Other (Explain in 'comments' section)

JUN 2 2 2010

ANDY LYTLE	AN	IDY	LYT	LE
------------	----	-----	-----	----

Name (Please Print)

Signature REGULATORY ANALYST

6/20/2010

Title

Date

	STATE OF UTAH		FORM 9			
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191					
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	sals to drill new wells, significantly deeper ugged wells, or to drill horizontal laterals. I		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-04GT					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047401910000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1863 FNL 1882 FEL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSHI	IP, RANGE, MERIDIAN: · Township: 10.0S Range: 22.0E Meridian:	S	STATE: UTAH			
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA						
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	■ NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK			
☐ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	☐ TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL			
✓ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
6/29/2010	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:			
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PROPETRO AIR RIG ON JUNE 27, 2010. DRILLED 11" SURFACE HOLE TO 2260'. RAN 8 5/8" 28# IJ-55 SURFACE CSG. PUMP 130 BBLS FRESH Accepted by the WATER. PUMP 20 BBLS GEL WATER. PUMP 225 SX TAIL CLASS G PREM LITEUtah Division of @ 15.8 PPG, 1.15 YD. NO CIRC. DROP PLUG ON THE FLY, DISPLACED W/ DA, Gas and Mining BBLS WATER. 50 PSI OF LIFT. BUMP PLUG & HOLD 620 PSI FOR 5 PEOR RECORD ONLY FLOAT HELD. PUMP 100 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YD. CEMENT FELL. WAITED TWO HRS & PUMPED 125 SX SAME CEMENT. CEMENT STAYED AT SURFACE. WORT.						
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	R TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 6/30/2010				

	FORM 9				
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191				
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	sals to drill new wells, significantly deepen ugged wells, or to drill horizontal laterals. U		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-04GT				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047401910000				
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHO Street, Suite 600, Denver, CO, 80217 3779	NE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1863 FNL 1882 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSHI	IP, RANGE, MERIDIAN: Township: 10.0S Range: 22.0E Meridian:	S	STATE: UTAH		
11. CHE	CK APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME		
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION		
	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
v	☐ TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL		
✓ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
8/1/2010	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. FINISHED DRILLING FROM 2260' TO 8788' ON JULY 29, 2010. RAN 4 ½" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS SPACER, LEAD CEMENT W/ 4Accepted by the SX CLASS G PREM LITE @ 12.6 PPG, 1.93 YD. TAILED CEMENT W/ 1025 SAUTAH Division of CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.31 YD. DISPLACED W/ 136 BBL ii, Gas and Mining CLAYTREAT WATER, BUMPED PLUG, FLOATS HELD. FULL RETURNS RECARDED AND CLEANED BACK TO PIT, EST. TOP OF TAIL @ 3406.RD RECARDED AND CLEANED PITS. RELEASED PIONEER RIG #69 ON AUGUST 1, 2010 @ 12:00 HRS.					
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	Regulatory Analyst			
SIGNATURE N/A		DATE 8/3/2010			

	FORM 9				
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191				
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	sals to drill new wells, significantly deepe ugged wells, or to drill horizontal laterals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-04GT		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047401910000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHO Street, Suite 600, Denver, CO, 80217 377	ONE NUMBER: 9 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1863 FNL 1882 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	IP, RANGE, MERIDIAN: Township: 10.0S Range: 22.0E Meridian	: S	STATE: UTAH		
11. CHE	CK APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME		
Approximate date work will start:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION		
·	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK		
SPUD REPORT	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL		
✓ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
8/14/2010	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON AUGUST 14, 2010 AT 1:25 P.M. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITHACCEPted by the THE WELL COMPLETION REPORT. Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 16, 2010					
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst			
SIGNATURE N/A		DATE 8/16/2010			

Form 3160-4 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

WELL	COMPI	ETION	OR RECOMPL	FTION REPORT	ANDLOC
VVELL	COMPL		UK KELLIMEI	_	

	WELL C	COMPL	ETION C	RRE	CO	MPLE	TIOI	N RE	PORT	AND	LO	3			asc Serial TU01191	No.	
1a. Type of	Well 🔲	Oil Well	☑ Gas ¹	Well)ry	Oth	ner			-			6. If	Indian, All	ottee o	r Tribe Name
b. Type of	Completion	☑ N Othe	lew Well er	□ Wo	rk Ov	er [] Dee	pen	☐ Plu	g Back		Diff. R	esvr.	7. Uı		greem	ent Name and No.
2. Name of	Operator	90400	NOLIODEE	l KT - ii.		Contac								8. Le	ase Name	and W	ell No.
3. Address	P.O. BOX		NOHOREE	EMail: a	andre	w.iytie@	yanad			lo. (inclu	do ora				BU 1022- PI Well No		
	DENVER,	CO 802						Ph:	720-92	29-6100	de are	a code)			-		43-047-40191
	of Well (Rep							•		s)*			,	10. F N	ield and Po ATURAL	ool, or BUTTI	Exploratory ES
At surfa	rod interval r	eported b		NE 186	3FNL	. 1882F	EL 39	9.9800	6 N Lat	t, 109.4	1214	W Lon		11. S	Sec., T., R., r Arca Se	M., or c 4 T1	Block and Survey 0S R22E Mer SLB
At total	depth SWI	NE 1863	i (<i>890</i> FNL 1882FI	EL 39.9	98006	N Lat,	109.4	44214	W Lon						County or P INTAH	arish	13. State UT
14. Date Sp 06/16/2	udded		15. Da	ate T.D /29/20	. Reac				16. Dat	e Compl : A 4/2010		ndy to Pi	od.	17. E		DF, KI 69 GL	B, RT, GL)*
18. Total D	epth:	MD TVD	8788 8786		19.	Plug Ba	ck T.I	D.:	MD TVD	- {	3735 3733		20. Dep	th Brid	ige Plug S		MD TVD
21. Type El //ADIL/ZI	lectric & Oth DL/CN/GF(-I	er Mecha BHY-GR	nical Logs R امرواCB	un (Sub	mit co	py of ea	ach)				22	Was I	ell corec ST run? ional Sur		⊠ No	T Yes	s (Submit analysis) s (Submit analysis) s (Submit analysis)
23. Casing an	d Liner Reco	ord (Repo	rt all strings	set in v	vell)												
Hole Size	Size/G	rade	Wt. (#/ft.)	To (M	^	Botto (ME		-	Cemente epth		of Sk	ts. & ement	Slurry (BB		Cement	Гор*	Amount Pulled
20.000		STEEL	36.7				40					28					
11.000	1	625 J55	28.0	<u> </u>			241			<u> </u>		450	ļ				
7.875	4	.500 I80	11.6			<u> </u>	3781			+		1485					
							\dashv			1			<u> </u>				
															İ		
24. Tubing															1		
	Depth Set (M		acker Depth	(MD)	Siz	ze j	Depth	Set (M	ID)	Packer I	epth ((MD)	Size	De	pth Set (M	D)	Packer Depth (MD)
2.375 25. Producii		8142			L		26 F	Perfora	tion Rec	ord				<u></u>	i		
	ormation		Top		Bot	itom	20.1			Interval		1	Cina	Τ,	i - II-l	Γ	D. C.O.
A)	WASA	тсн	. тор	6082		6244	· · · · · ·		rioratec	6082		244	Size 0.30		lo. Holes	OPE	Perf. Status
В)	MESAVE			6804		8647		***************************************		6804			0.30			OPE	
C)																	
D)																	
	acture, Treat			e, Etc.													
	Depth Interva			26 DDI	C CI 10	SK USO	0 04 7	EELDO		mount a	nd Ty	pe of M	aterial				
	· · · · · · · · · · · · · · · · · · ·		244 PUMP 5 647 PUMP 7														
		04 10 0	347 1 31411 7	,001 01	<u> </u>	-101112	0 0 00	2,000 1	100 00/0	OCIND					······································		
28. Producti	on - Interval	A															
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF	Wa BB	ater	Oil C Corr.	iravity API		Gas Gravity		Producti	on Method		
08/14/2010	08/16/2010	24		0.0	1	3021.0	- 1	421.0				Gravity			FLOV	VS FRO	OM WELL
Choke Size	Tbg. Press. Flwg. 2250	Csg. Press.	24 Hr. Rate	Oil BBL		Jas MCF	Wa BB	ater	Gas:		************	Well Sta	itus				
20/64	S1	3050.0		0	_ [3021		421	Kaile	•		P	GW				
28a. Produc	tion - Interva	l B															
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF	Wa BB	ater 3L	Oil C Corr.	ravity API		Gas Gravity		Producti	on Method		-
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL		Gas MCF	Wa BB	ater BL	Gas:0 Ratio			Well Sta	ntus	···		RE	CEIVED

OCT 1 3 2010

28b Proc	luction - Inter	val C									
Date First	Test	Hours	Test	Oil	Gas	Water	Oil Gravity	Gas	Production Me	thod	
Produced	Date	Tested	Production	BBL	MCF	BBI.	Corr. API	Gravity			
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Sta	atus		
28c. Prod	luction - Inter	val D						1,			
Date First Produced	Tost Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Me	thod	
Choke Size	Tbg. Press. Flwg. Sl	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Sta	atus	Televisia	
29. Dispo	osition of Gas D	(Sold, usea	for fuel, ve	nted, etc.)						<u> </u>	
30. Sumr	nary of Porou	s Zones (Ir	nclude Aqui	fers):				Т	31. Formation (Log) Markers	
tests,	all important including dep ecoveries.	zones of poth interval	oorosity and tested, cush	contents ther nion used, tim	reof: Cored te tool open	intervals an , flowing an	d all drill-stem nd shut-in pressure	s			
	Formation		Тор	Bottom		Descript	ions, Contents, etc		Nar	ne Top Meas. Dept	
GREEN F BIRD'S N MAHOGA WASATC MESAVE	EST ANY H		1136 1456 1954 4368 6826	6336 8788	TC	•					
ATT/	tional remarks ACHED IS T	HE DRILL	olugging pro ING/COMI	cedure): PLETION CI	HRONOLO	OGICAL W	ELL HISTORY A	ND FINAL S	SURVEY.		
1. El 5. Su	ectrical/Mech andry Notice f	anical Log or pluggin	g and cemer	nt verification	ic Report nalysis	7 Other: 3. DST Report 4. Directional Survey 7 Other: s determined from all available records (see attached instructions):					
54. I nero	by certify tha	i inc foregi	oing and atta	ctronic Subn	nission #93	025 Verifie	orrect as determine d by the BLM W ONSHORE, LP,	ell Informat	ion System	attached instructions):	
Name	e (please print	ANDY L	YTLE				Title R	EGULATO	RY ANALYST		
Signa	ıture	(Elec <mark>aro</mark> i	nic Submis	sion)		· · · · · · · · · · · · · · · · · · ·	Date <u>0</u>	9/17/2010			
		X	•								

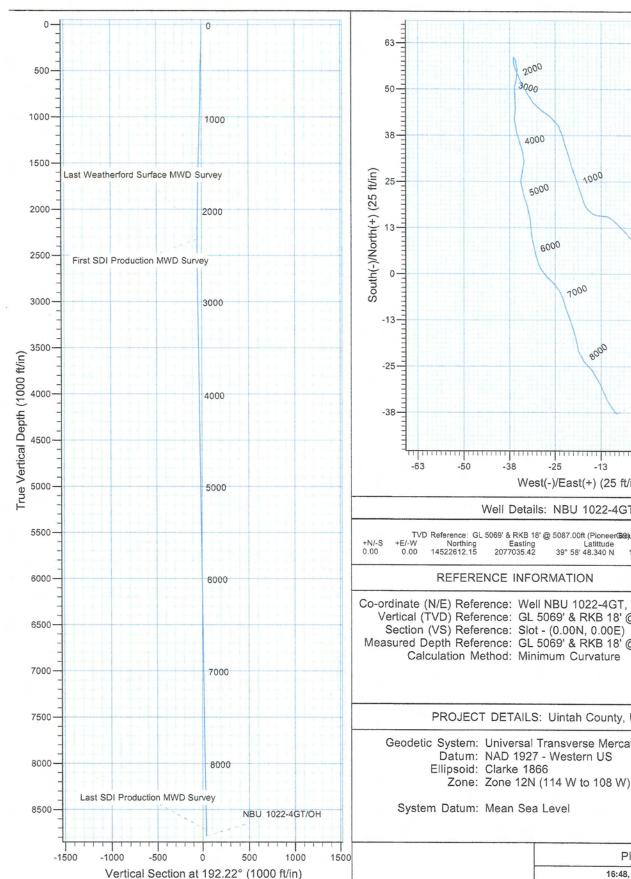


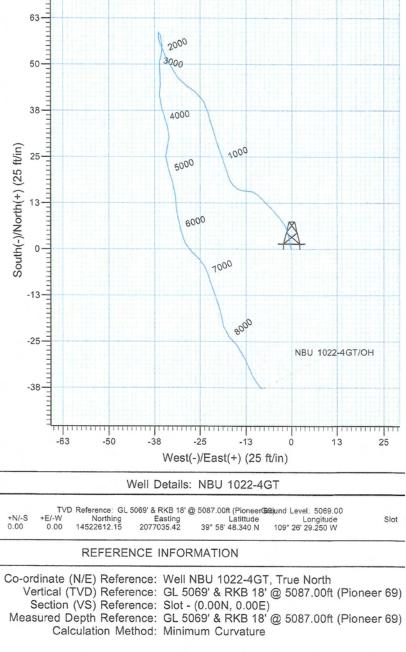
Company: Kerr McGee Oil and Gas Onshore LP Project: Ulntah County, UT UTM12 Site: NBU 1022-4GT Well: NBU 1022-4GT

Wellbore: OH

Design: OH







PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)

Plan: OH

16:48, August 04 2010 Created By: Rey Hall



Kerr McGee Oil and Gas Onshore

LP

Uintah County, UT UTM12 NBU 1022-4GT NBU 1022-4GT

OH

Design: OH

Standard Survey Report

04 August, 2010





Scientific Drilling International

Survey Report



Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Well: NBU 1022-4GT NBU 1022-4GT

Wellbore: Design:

Project

ОН

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Database:

Well NBU 1022-4GT

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

True

Minimum Curvature Rockies-R5000.1

ОН

Uintah County, UT UTM12

Map System:

Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US

Geo Datum: Map Zone:

Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

Site

From:

NBU 1022-4GT, Sec 4 T10S R22E

Site Position:

Lat/Long

Northing: Easting:

14,522,612.16 usft 2,077,035.42 usft

Latitude: Longitude:

39° 58' 48.340 N

Position Uncertainty:

0.00 ft

Slot Radius:

13.200 in

109° 26' 29.250 W

1.00°

Grid Convergence:

Well

NBU 1022-4GT, 1897' FNL & 1861' FEL

Well Position

+N/-S +É/-W 0.00 ft 0.00 ft

Northing: Easting:

14,522,612.16 usft 2,077,035.42 usft Latitude: Longitude: 39° 58' 48.340 N

Position Uncertainty

0.00 ft

Wellhead Elevation:

ft

Ground Level:

109° 26' 29.250 W 5,069.00 ft

Wellbore

ОН

Magnetics

Model Name

Sample Date

Declination

(°)

Dip Angle (°)

Field Strength

(nT)

IGRF2010

7/15/2010

11.17

65.89

52,417

Design

Audit Notes:

Version:

1.0

ОН

Phase:

ACTUAL

Tie On Depth:

14.00

Vertical Section:

Depth From (TVD) (ft)

+N/-S (ft)

+E/-W

Direction

14.00

0.00

(ft) 0.00 (°) 192.22

Survey Program

Date 8/4/2010

From (ft)

То

Survey (Wellbore)

Tool Name

Description

91.00 2,312.00 (ft) 2,199.00 Survey #1 - Weatherford Surface MWD (O

8,788.00 Survey #2 - Production MWD (OH)

MWD MWD SDI

MWD - Standard MWD - Standard ver 1.0.1

Survey

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
14.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00
91.00	0.54	325.70	91.00	0.30	-0.20	-0.25	0.70	0.70	0.00
First Weathe	erford Surface M	WD Survey							
181.00	1.67	352.69	180.98	1.95	-0.61	-1.78	1.35	1.26	29.99
267.00	2.28	344.35	266.93	4.84	-1.23	-4.47	0.78	0.71	-9.70
355.00	3.00	318.83	354.84	8.26	-3.22	-7.39	1.55	0.82	-29.00
445.00	2.44	318.21	444.74	11.46	-6.05	-9.92	0.62	-0.62	-0.69
535.00	2.75	311.83	534.64	14.33	-8.93	-12.12	0.47	0.34	-7.09
625.00	1.14	261.89	624.60	15.64	-11.43	-12.87	2.44	-1.79	-55,49
715.00	1.83	285.08	714.57	15.89	-13,70	-12.63	1.00	0.77	25.77



Scientific Drilling International

Survey Report



Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Well: NBU 1022-4GT NBU 1022-4GT

Wellbore: Design: OH OH

ter wicee on and das onshore Li

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Local Co-ordinate Reference:

Database:

Well NBU 1022-4GT

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

True

Minimum Curvature Rockies-R5000.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
805.00	1.94	317.21	804.52	17.38	-16.12	-13.58	1.16	0.12	35.70
895.00	2.38	346.21	894.46	20.32	-17.60	-16.13	1.29	0.49	32.22
985.00	2.75	339.09	984.37	24.15	-18.82	-19.62	0.54	0.41	-7.91
1,075.00	2.44	340.83	1,074.27	27.97	-20.22	-23,06	0.36	-0.34	1.93
1,165.00	1.94	346.33	1,164.21	31.26	-21.21	-26.07	0.60	-0.56	6.11
1,255.00	1.69	338.71	1,254.16	33.98	-22.05	-28.55	0.39	-0.28	-8.47
1,345.00	2.25	348.83	1,344.11	36.95	-22.87	-31.27	0.73	0.62	11.24
1,435.00	2.22	326.97	1,434.04	40.15	-24.17	-34.12	0.94	-0.03	-24.29
1,525.00	1.94	307.09	1,523.99	42.53	-26.33	-35.99	0.85	-0.31	-22.09
1,615.00	1.94	302.21	1,613.93	44.26	-28.84	-37.15	0.18	. 0.00	-5.42
1,705.00	2.06	323.59	1,703.88	46.37	-31.09	-38.74	0.83	0.13	23.76
1,795.00	2.00	331.21	1,793.82	49.05	-32.80	-41.00	0.31	-0.07	8.47
1,885.00	1.56	329.46	1,883.78	51.48	-34.18	-43.08	0.49	-0.49	-1.94
1,975.00	1.44	342.33	1,973.75	53.61	-35.15	-44.96	0.40	-0.13	14.30
2,065.00	1.13	330.09	2,063.73	55.46	-35.93	-46.60	0.46	-0.34	-13.60
2,155.00	0.81	357.09	2,153.71	56.86	-36.41	-47.87	0.61	-0.36	30.00
2,199.00	0.78	351.88	2,197.71	57.47	-36.47	-48.45	0.18	-0.07	-11.84
Last Weathe	erford Surface M	WD Survey							
2,312.00	0.38	13.33	2,310.70	58.60	-36.49	-49.55	0.40	-0.35	18.98
First SDI Pro	oduction MWD S	urvey							
2,531.00	0.67	163.65	2,529.70	58.07	-35.96	-49.15	0.46	0.13	68.64
2,722.00	1.13	174.43	2,720.68	55.13	-35.46	-46.38	0.26	0.24	5.64
2,915.00	0.50	212.55	2,913.66	52.52	-35.73	-43.77	0.41	-0.33	19.75
3,104.00	0.76	180.29	3,102.65	50.58	-36.18	-41.78	0.23	0.14	-17.07
3,293.00	1.14	175.77	3,291.62	47.45	-36.05	-38.75	0.20	0.20	-2.39
3,482.00	0.48	184.35	3,480.60	44.78	-35.97	-36.16	0.35	-0.35	4.54
3,671.00	1.48	182.80	3,669.57	41.56	-36.15	-32.97	0.53	0.53	-0.82
3,860.00	0.75	144.48	3,858.54	38.11	-35.55	-29.73	0.53	-0.39	-20.28
4,017.00	1.22	172.32	4,015.51	35.62	-34.73	-27.46	0.42	0.30	17.73
4,203.00	0.55	145.54	4,201.49	32.92	-33.96	-24.99	0.41	-0.36	-14.40
4,393.00	1.07	182.05	4,391.47	30.40	-33.51	-22.62	0.37	0.27	19.22
4,582.00	0.61	208.46	4,580.45	27.75	-34.05	-19.91	0.31	-0.24	13.97
4,802.00	0.88	175.06	4,800.43	25.03	-34.46	-17.18	0.23	0.12	-15.18
4,991.00	1.09	161.07	4,989.41	21.89	-33.75	-14.25	0.17	0.11	-7.40
5,181.00	0.36	172.52	5,179.39	19.59	-33.09	-12.14	0.39	-0.38	6.03
5,372.00	0.69	154.87	5,370.38	17.95	-32.52	-10.66	0.19	0.17	-9.24
5,588.00	1.31	176.04	5,586.35	14.31	-31.80	-7.26	0.13	0.17	9.80
5,750.00	1.18	174.93	5,748.31	10.80	-31.53	-3.89	0.08	-0.08	-0.69
5,940.00	0.85	158.49	5,938.28	7.54	-30.84	-0.85	0.23	-0.17	-8.65
6,129.00	0.93	176.34	6,127.26	4.71	-30.22	1.80	0.15	0.04	9,44
6,317.00	1.17	147.51	6,315.23	1.56	-29.10	4.63	0.30	0.13	-15.3 4
6,507.00	0.65	133.07	6,505.20	-0.81	-27.27	6.56	0.30	-0.27	-7.60
6,696.00	1.01	133.04	6,694.18	-2.68	-25.27	7.96	0.30	0.19	-7.60



Survey Report



Company: Project:

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12

Site: Well: NBU 1022-4GT NBU 1022-4GT

Wellbore: Design:

ОН ΟН

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Database:

Well NBU 1022-4GT

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

Minimum Curvature Rockies-R5000.1

Survey

Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft) .	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
6,885.00	0.54	160.82	6,883.17	-4.65	-23.76	9.58	0.31	-0.25	14.70
7,075.00	1.08	156.74	7,073.15	-7.15	-22.75	11.80	0.29	0.28	-2.15
7,263.00	0.75	172.36	7,261.12	-9.99	-21.89	14.40	0.22	-0.18	8.31
7,452.00	1.47	153.03	7,450.09	-13.38	-20.63	17.44	0.42	0.38	-10.23
7,641.00	0.98	177.82	7,639.04	-17.16	-19.47	20.89	0.38	-0.26	13.12
7,830.00	1.31	160.86	7,828.01	-20.81	-18.70	24.30	0.25	0.17	-8.97
8,018.00	0.81	138.28	8,015.97	-23.83	-17,11	26.91	0.34	-0.27	-12.01
8,208.00	1.02	134.21	8,205.95	-26.01	-15.00	28.60	0.12	0.11	-2.14
8,396.00	1.53	159.51	8,393.90	-29.53	-12.92	31.60	0.40	0.27	13.46
8,585.00	1.64	1 51.83	8,582.83	-34.28	-1 0.76	35.78	0.13	0.06	-4.06
8,710.00	1.07	138.78	8,707.80	-36.74	-9.15	37.84	0.52	-0.46	-10.44
Last SDI Pro	duction MWD S	urvey	75						
8,788.00	1.07	138.78	8,785.78	-37.83	-8.19	38.71	0.00	0.00	0.00

Design Targets								-	
Target Name - hit/miss target	Dip Angle	Dìp Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
NBU 1022-4GT PBHL - actual wellpath mis - Circle (radius 25.0	-	0.00 ter by 38.57	8,774.00 ft at 8775.79	0.00 ft MD (8773.5	0.00 7 TVD, -37.66	14,522,612.16 5 N, -8.34 E)	2,077,035.42	39° 58′ 48.340 N	109° 26' 29.250 W

Design Annotations					
Measured	Vertical	Local Coo	rdinates		
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/- W (ft)	Comment	
91.00	91.00	0.30	-0.20	First Weatherford Surface MWD Survey	
2,199.00	2,197.71	57.47	-36.47	Last Weatherford Surface MWD Survey	
2,312.00	2,310.70	58.60	-36.49	First SDI Production MWD Survey	
8,710.00	8,707.80	-36.74	-9.15	Last SDI Production MWD Survey	
8,788.00	8,785.78	-37.83	-8.19	Projection To TD	
1					

1			
Checked By:	Approved By:	Data	
CHECKEU By.	Approved by.	Date:	
1		The state of the s	Marine



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 1022-4GT NBU 1022-4GT

OH

Design: OH

Survey Report - Geographic

04 August, 2010





Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Weli: NBU 1022-4GT NBU 1022-4GT

Wellbore: Design:

OH ОН Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NRU 1022-4GT

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69) GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

Minimum Curvature

Rockies-R5000.1

Project Uintah County, UT UTM12

Map System: Geo Datum:

Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US

Map Zone:

Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

Site NBU 1022-4GT, Sec 4 T10S R22E

Site Position:

From:

Lat/Long

Northing:

Easting:

14,522,612.16 usft

2,077,035.42 usft

Latitude: Longitude:

39° 58' 48.340 N

Position Uncertainty:

0.00 ft

Slot Radius:

13.200 in

Grid Convergence:

109° 26' 29.250 W

1.00°

Well NBU 1022-4GT, 1897' FNL & 1861' FEL

Well Position

0.00 ft

0.00 ft 0.00 ft Northing: Easting:

14,522,612.16 usft 2,077,035.42 usft

Latitude: Longitude:

39° 58′ 48.340 N 109° 26' 29.250 W

Position Uncertainty

+N/-S

+E/-W

Wellhead Elevation:

ft

Ground Level:

5,069.00 ft

Wellbore ОН

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2010

7/15/2010

11.17

65.89

52,417

Design

ОН

Audit Notes:

Version:

1.0

Phase:

ACTUAL

Tie On Depth:

14.00

Vertical Section:

Depth From (TVD)

(ft)

+N/-S (ft)

+E/-W (ft)

Direction

14.00

0.00

0.00

(°) 192.22

Survey Program

(ft)

From

To

(ft) Survey (Wellbore)

Date

Tool Name

Description

91.00 2,312.00

2,199.00 Survey #1 - Weatherford Surface MWD (O 8,788.00 Survey #2 - Production MWD (OH)

8/4/2010

MWD MWD SDI MWD - Standard MWD - Standard ver 1.0.1

Survey

Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Map Northing	Map Easting		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
14.00	0.00	0.00	14.00	0.00	0.00	14,522,612.16	2,077,035.42	39° 58' 48.340 N	109° 26' 29.250 W
91.00	0.54	325.70	91.00	0.30	-0.20	14,522,612.45	2,077,035.21	39° 58' 48.343 N	109° 26' 29.253 V
First We	atherford Sur	face MWD Su	rvey						
181.00	1.67	352.69	180.98	1.95	-0.61	14,522,614.10	2,077,034.77	39° 58′ 48.359 N	109° 26' 29,258 W
267.00	2.28	344.35	266.93	4.84	-1.23	14,522,616.98	2,077,034.10	39° 58' 48.388 N	109° 26' 29.266 W
355.00	3.00	318.83	354.84	8.26	-3.22	14,522,620.36	2,077,032.05	39° 58' 48.422 N	109° 26' 29.291 V
445.00	2.44	318.21	444.74	11.46	-6.05	14,522,623.51	2,077,029.17	39° 58' 48.453 N	109° 26' 29.328 W
535.00	2.75	311.83	534.64	14.33	-8.93	14,522,626.33	2,077,026.23	39° 58' 48.482 N	109° 26' 29.365 V
625.00	1.14	261.89	624.60	15.64	-11.43	14,522,627.60	2,077,023.72	39° 58' 48.495 N	109° 26' 29.397 W
715.00	1.83	285.08	714.57	15.89	-13.70	14,522,627.81	2,077,021.44	39° 58' 48,497 N	109° 26' 29,426 W
805.00	1.94	317.21	804.52	17.38	-16.12	14,522,629.26	2,077,018.99	39° 58' 48,512 N	109° 26' 29.457 W



Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Well: NBU 1022-4GT NBU 1022-4GT

Wellbore: Design: OH OH Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 1022-4GT

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

True

Minimum Curvature Rockies-R5000.1

leasured			Vertical			Мар	Мар		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
895.00	2.38	346.21	894.46	20.32	-17.60	14,522,632.16	2,077,017.46	39° 58' 48.541 N	109° 26' 29.4'
985.00	2.75	339.09	984.37	24.15	-18.82	14,522,635.97	2,077,016.18	39° 58' 48.579 N	109° 26' 29.4
1,075.00	2.44	340.83	1,074.27	27.97	-20.22	14,522,639.77	2,077,014.71	39° 58' 48.617 N	109° 26' 29.5
1,165.00	1.94	346.33	1,164.21	31.26	-21.21	14,522,643.04	2,077,013.66	39° 58' 48.649 N	109° 26' 29.5
1,255.00	1.69	338.71	1,254.16	33.98	-22.05	14,522,645.75	2,077,012.77	39° 58' 48.676 N	109° 26' 29.5
1,345.00	2.25	348.83	1,344.11	36.95	-22.87	14,522,648.70	2,077,011.90	39° 58' 48.705 N	109° 26' 29.5
1,435.00	2.22	326.97	1,434.04	40.15	-24.17	14,522,651.87	2,077,010.55	39° 58' 48.737 N	109° 26' 29.5
1,525.00	1.94	307.09	1,523.99	42.53	-26.33	14,522,654.21	2,077,008.34	39° 58' 48.760 N	109° 26' 29.5
1,615.00	1.94	302.21	1,613.93	44.26	-28.84	14,522,655.90	2,077,005.81	39° 58' 48.777 N	109° 26' 29.6
1,705.00	2.06	323.59	1,703.88	46.37	-31.09	14,522,657.98	2,077,003.52	39° 58' 48.798 N	109° 26' 29.6
1,795.00	2.00	331.21	1,793.82	49.05	-32.80	14,522,660.62	2,077,001.76	39° 58' 48.825 N	109° 26' 29.6
1,885.00	1.56	329.46	1,883.78	51.48	-34.18	14,522,663.03	2,077,000.34	39° 58' 48.849 N	109° 26' 29.6
1,975.00	1.44	342.33	1,973.75	53.61	-35.15	14,522,665.15	2,076,999.34	39° 58′ 48.870 N	109° 26' 29.7
2,065.00	1.13	330.09	2,063.73	55.46	-35.93	14,522,666.98	2,076,998.52	39° 58' 48.888 N	109° 26' 29.7
2,155.00	0.81	357.09	2,153.71	56.86	-36.41	14,522,668.37	2,076,998.02	39° 58' 48.902 N	109° 26' 29.7
2,199.00	0.78	351.88	2,197.71	57.47	-36.47	14,522,668.98	2,076,997.95	39° 58′ 48.908 N	109° 26' 29.7
Last Wea	therford Surf	ace MWD Su	rvev						
2,312.00	0.38	13.33	2,310.70	58.60	-36.49	14,522,670.11	2,076,997.91	39° 58′ 48.919 N	109° 26′ 29.7
First SDI	Production N	AWD Survey					,,		20
2,531.00	0.67	163.65	2,529.70	58.07	-35.96	14,522,669.59	2,076,998.45	39° 58' 48.914 N	109° 26' 29.7
2,722.00	1.13	174.43	2,720.68	55.13	-35.46	14,522,666.66	2,076,998.99	39° 58' 48.885 N	109° 26' 29.7'
2,915.00	0.50	212.55	2,913.66	52.52	-35.73	14,522,664.05	2,076,998.77	39° 58' 48.859 N	109° 26' 29.7
3,104.00	0.76	180.29	3,102.65	50.58	-36.18	14,522,662.09	2,076,998.36	39° 58' 48.840 N	109° 26' 29.7
3,293.00	1.14	175.77	3,291.62	47.45	-36.05	14,522,658.97	2,076,998.54	39° 58' 48.809 N	109° 26' 29.7
3,482.00	0.48	184.35	3,480.60	44.78	-35.97	14,522,656.30	2,076,998.67	39° 58' 48.783 N	109° 26' 29.7
3,671.00	1.48	182.80	3,669.57	41.56	-36.15	14,522,653.07	2,076,998.55	39° 58' 48.751 N	109° 26' 29.7
3,860.00	0.75	144.48	3,858.54	38.11	-35.55	14,522,649.64	2,076,999.21	39° 58' 48.717 N	109° 26' 29.7
4,017.00	1.22	172.32	4,015.51	35.62	-34.73	14,522,647.16	2,077,000.07	39° 58′ 48.692 N	109° 26' 29.6
4,203.00	0.55	145.54	4,201.49	32.92	-33.96	14,522,644.48	2,077,000.89	39° 58' 48.665 N	109° 26' 29.6
4,393.00	1.07	182.05	4,391.47	30.40	-33.51	14,522,641.96	2,077,001.38	39° 58' 48.640 N	109° 26' 29.6
4,582.00	0.61	208.46	4,580.45	27.75	-34.05	14,522,639.30	2,077,000.89	39° 58′ 48.614 N	109° 26' 29.6
4,802.00	0.88	175.06	4,800.43	25.03	-34.46	14,522,636.58	2,077,000.52	39° 58′ 48.587 N	109° 26' 29.6
4,991.00	1.09	161.07	4,989.41	21.89	-33.75	14,522,633.45	2,077,001.28	39° 58′ 48.556 N	109° 26' 29.6
5,181.00	0.36	172.52	5,179.39	19.59	-33.09	14,522,631.16	2,077,001.99	39° 58′ 48.534 N	109° 26' 29.6'
5,372.00	0.69	154.87	5,370.38	17.95	-32.52	14,522,629.54	2,077,002.58	39° 58′ 48.517 N	109° 26' 29.66
5,588.00	1.31	176.04	5,586.35	14.31	-31.80	14,522,625.91	2,077,003.37	39° 58′ 48.481 N	109° 26' 29.6
5,750.00	1.18	174.93	5,748.31	10.80	-31.53	14,522,622.40	2,077,003.71	39° 58' 48.447 N	109° 26' 29.6
5,940.00	0.85	158.49	5,938.28	7.54	-30.84	14,522,619.16	2,077,004.45	39° 58′ 48.415 N	109° 26' 29.6
6,129.00	0.93	176.34	6,127.26	4.71	-30.22	14,522,616.33	2,077,005.11	39° 58' 48.387 N	109° 26' 29.6
6,317.00	1.17	147.51	6,315.23	1.56	-29.10	14,522,613.21	2,077,006.30	39° 58' 48.355 N	109° 26' 29.62
6,507.00	0.65	133.07	6,505.20	-0.81	-27.27	14,522,610.87	2,077,008.17	39° 58′ 48.332 N	109° 26' 29.60
6,696.00	1.01	133.04	6,694.18	-2.68	-25.27	14,522,609.04	2,077,010.20	39° 58' 48.314 N	
6,885.00	0.54	160.82	6,883.17	-4.65	-23.76	14,522,607.09	2,077,010.20	39° 58' 48.294 N	109° 26' 29.5'
7,075.00	1.08	156.74	7,073.15	-7.15	-22.75	14,522,604.61	2,077,011.79	39° 58' 48.269 N	109° 26' 29.5
7,263.00	0.75	172.36	7,261.12	-9.99	-21.89	14,522,601.78	2,077,012.79	39° 58' 48.241 N	109° 26' 29.5
7,452.00	1.47	153.03	7,450.09	-13.38	-20.63	14,522,598.42	2,077,015.03	39° 58′ 48.208 N	109° 26' 29.5' 109° 26' 29.5'
7,641.00	0.98	177.82	7,639.04	-17.16	-19.47	14,522,594.66	2,077,016.25	39° 58′ 48.170 N	
7,830.00	1.31	160.86	7,828.01	-20.81	-18.70	14,522,591.02	2,077,018.29	39° 58′ 48.134 N	109° 26' 29.56
8,018.00	0.81	138.28	8,015.97	-23.83	-17.11	14,522,588.03	2,077,017.09		109° 26' 29.4
8,208.00	1.02	134.21	8,205.95	-26.01	-15.00	14,522,585.88	2,077,010.73	39° 58' 48.104 N	109° 26' 29.4'
8,396.00	1.53	159.51	8,393.90	-29.53	-12.92	14,522,582.40	2,077,020.87	39° 58' 48.083 N	109° 26' 29.44
8,585.00	1.64	151.83	8,582.83	-34.28	-10.76	14,522,582.40	2,077,025.01	39° 58' 48.048 N	109° 26' 29.4'
8,710.00	1.07	138.78	8,707.80	-36.74	-9.15	-,022,011.0d	2,011,020.20	39° 58' 48.001 N	109° 26′ 29.38



Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Weli: NBU 1022-4GT NBU 1022-4GT

Wellbore: Design:

ОН ОН

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method:

Database:

Well NBU 1022-4GT

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

GL 5069' & RKB 18' @ 5087.00ft (Pioneer 69)

Minimum Curvature Rockies-R5000.1

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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,788.00 Projecti o	1.07 on To TD	138.78	8,785.78	-37.83	-8.19	14,522,574.19	2,077,027.89	39° 58′ 47.966 N	109° 26' 29.355 W

Design Targets

Ta

Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
NBU 1022-4GT PBHL	0.00	0.00	8,774.00	0.00	0.00	14,522,612.16	2,077,035.42	39° 58′ 48,340 N	109° 26' 29.250 W
- actual wellpath mis	sses target cer	nter by 38.57	ft at 8775.79	ft MD (8773.5	7 TVD, -37.66	3 N, -8.34 E)			}

- Circle (radius 25.00)

Design Annotation	ıs				•	
Me	easured	Vertical	Local Coo	rdinates		
1	Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
	91.00	91.00	0.30	-0.20	First Weatherford Surface MWD Survey	
	2,199.00	2,197.71	57.47	-36.47	Last Weatherford Surface MWD Survey	
	2,312.00	2,310.70	58.60	-36.49	First SDI Production MWD Survey	
	8,710.00	8,707.80	-36.74	-9.15	Last SDI Production MWD Survey	
	8,788.00	8,785.78	-37.83	-8.19	Projection To TD	

			_
Checked By:	Approved By:	Date:	
	The state of the s		- 1

AZ-II. NIDI I 400	0.407				01101==					
Well: NBU 102				onductor		10	Spud Date: 6	/27/2010		
Project: UTAH-			Site: NB	U 1022-4	4GT			Rig Name No: PIONEER 69/69, PROPETRO/		
Event: DRILLIN				te: 3/12/2				End Date: 8/1/2010		
Active Datum: Level)	RKB @5,080.01ft (above Mear	Sea	Sea UWI: SW/NE/0/10/S/22/E				2/E/4/0/0/6/PM/N/1,863.00/E/0/1,882.00/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation		
6/27/2010	5:30 - 11:30	6.00	MIRU	01	В	Р		MOVE ONTO LOCATION. CLEAN CONDUCTOR PILES UP AROUND WELL HEAD. DRESS TOP OF CONDUCTOR. INSTALL DIVERTER HEAD AND BOWIE LINE. BUILD DITCH. MOVE RIG OVER HOLE AND RIG UP. RIG UP AND PRIME PIT PUMP AND MUD PUMP. SET CATWALK AND PIPE RACKS. P/U		
	11:30 - 13:00 13:00 - 15:00	1.50	PRPSPD	06	A	Р		P/U 1.50 DEG BENT HOUSE MOTOR SN 775-77294. 7/8 LOBE .16 RPG WHILE MAKING UP BIT. NOTICED LOOSE CONNECTION ON MANDREL. TIGHTENED CONNECTION. HAD A FEW ISSUES MAKING UP BIT. M/U Q507F SN 7020022 W/ 7-18'S. INSTALL RUBBER.		
		2.00	DRLSUR	02	В	P		SPUD 6/27/2010 13:00 DRILL 44'- 150'.		
	15:00 - 17:00	2.00	DRLSUR	06	Α	Ρ		LD 6" DC'S. P/U DIR. TOOLS.		
	17:00 - 0:00	7.00	DRLSUR	02	D	P		DRILL/SLIDE 150-800' (650', 93'/HR) BUILD ANGLE TO 2 DEG @ 2 DEG.BUILD RATE TO 318 DEG AZIMITH. WOB=20K, GPM = 550, ROT= 50, UP/DOWN/ROT 58/55/56. DRAG= 2K ON/OFF PSI = 1000/1200. CIRC RESERVE PIT. 8.3 WT 27 VIS. PARTIAL RETURNS, DRLG W/ AIRIATED WATER.		
6/28/2010	0:00 - 18:00	18.00	DRLSUR	02	С	Р		DRILL/SLIDE 800'-2260' (1430", 79'/HR) BUILD ANGLE TO 2 DEG @ 2 DEG.BUILD RATE TO 318 DEG AZIMITH. WOB=20K, GPM = 550, ROT= 50, UP/DOWN/ROT 68/65/66. DRAG= 2K ON/OFF PSI = 1000/1200. CIRC RESERVE PIT. 8.3 WT 27 VIS. PARTIAL RETURNS, DRLG W/ AIRIATED WATER		
	18:00 - 19:30	1.50	DRLSUR	05	С	Ρ		CIRC AND COND HOLE CLEAN		
	19:30 - 20:30	1.00	DRLSUR	06	Α	P		TOOH, LDDS,		
	20:30 - 21:00	0.50	DRLSUR	05	Α _	s		WELL STARTED FLOWING PRETTY GOOD, CIRCULATE OUT GAS,		
	21:00 - 22:30	1.50	DRLSUR	06	E	S		TIH TO BOTTOM WHERE GAS ZONE WAS		
	22:30 - 23:00	0.50	DRLSUR	05	Α	S		CIRC OUT GAS WHILE WAITING ON TRUCK W/ MUD, ENDED UP SPOTTING 60 BBLS OF 12.# MUD @ 2255'		
	23:00 - 0:00	1.00	DRLSUR	06	Α	Р		TOOH, LDDS AND DIR BHA, SPOTTED 40 BBLS 12# MUD @ 450'		
6/29/2010	0:00 - 3:00	3.00	DRLSUR	06	Α	Р		LDDS AND DIR BHA		
	3:00 - 7:30	4.50	CSG	12	С	Р		HELD SAFETY MEETING, RIG UP TO RUN CSG. RAN 50 JTS OF 8-5/8", 28#, IJ-55 CSG W/ LTC THREADS. LANDED FLOAT SHOE @ 2227.50'KB. RAN BAFFLE PLATE IN TOP OF SHOE JT LANDED 2181 50'KB. FILL CSG. @ 500' 4500' AND 2200'		
	7:30 - 8:00	0.50	DRLSUR	01	Ε	Р		2181.50' KB. FILL CSG @ 500', 1500', AND 2200'. RIG DOWN RIG, RELEASE 6/29/2010 08:00		

			O	perat	ion S	umma	ary Repoi	rt
Well: NBU 102	2-4GT		Spud C	onductor	: 6/16/20)10	Spud Date: 6	/27/2010
Project: UTAH	-UINTAH		Site: NE	U 1022-	4GT			Rig Name No: PIONEER 69/69, PROPETRO/
Event: DRILLII	NG		Start Da	ite: 3/12/	2009			End Date: 8/1/2010
Active Datum: Level)	RKB @5,080.01ft (above Mean	Sea	UWI: S	W/NE/0	/10/8/22/	=/4/0/0/6/PM/N	1/1,863.00/E/0/1,882.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	8:00 - 11:30	3.50	CSG	12	E	P		HOLD SAFETY MEETING. INSTALL CEMENT HEAD. PSI TEST TO 2000 PSI. PUMP 130 BBLS OF 8.3# H20 AHEAD. NO CIRC. PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. NO CIRC. PUMP 225 SX (30 BBLS) OF 15.8# (2 % CALC, 1/4# /SK OF FLOCELE). NO CIRC. DROP PLUG ON FLY AND DISPLACE W/134 BBLS OF 8.3# H20. NO RETURNS. 50 PSI OF LIFT. BUMP PLUG AND HOLD 620 PSI FOR 5 MIN. FLOAT HELD. PUMP 100 SX (25.6 BBLS) OF 15.8# (4 % CALC, 1/4# /SK OF FLOCELE). CEMENT FELL, WAITED TWO HRS AND PUNPED125 SX, CMT STAYED AT SURFACE RIG DOWN CEMENTERS AND RELEASE CEMENTERS 11:30 HRS.
								CONDUCTOR CASING: Cond. Depth set: 40' Cement sx used: 28
								SPUD DATE/TIME: 6/27/2010 15:00
								SURFACE HOLE: Surface From depth: 40' Surface To depth: 2260' Total SURFACE hours: 27.00 Surface Casing size: 8.625" # of casing joints ran: 50 Casing set MD: 2227.50" # sx of cement: 450 Cement blend (ppg:) 15.8 Cement yield (ft3/sk): 1.15 # of bbls to surface: 0 Describe cement issues: LOST CIRC, CMT STAYED AT SURFACE Describe hole issues: HAD SOME GAS WHILE LDDS, SPOTTED 60 BBL @ 2255' AND 40 BBL @
7/22/2010	22:00 - 0:00	2.00	RDMO	01	Е	Р		450', LOST TOTAL @ 1500' CIRC.
7/23/2010	0:00 - 6:00	6.00	RDMO	01	E	P		RDRT, PREPARE RIG FOR MOVE RDRT ,PREPARE RIG F/ MOVE
	6:00 - 11:30	5.50	RDMO	01	F	P		SAFETY MEETING W/ RIG CREW, WEST ROC, J&C CRANE & MOUNTAIN WEST, SCOPE DOWN DERRICK W/ CRANE ASSIST & LOWER, SCOPE DOWN SUB & LOAD OUT TRUCKS, 8 BED, 8 HAUL TRUCKS 2-FORKLIFTS & CRANE ON LOACATION
	11:30 - 18:00	6.50	MIRU	01	В	Р		@ 06:00 SET IN SUB , CARRIER & ALL BUILDINGS,RIG UP ELECTRIC,AIR, WATER,FUEL RAISE SUB & DERRICK,TRUCKS RELEASED @ 1500,CRANE @ 1700
	18:00 - 20:30	2.50	MIRU	01	В	Р		RURT,MAGNA FLUX DRUM & SWIVEL
	20:30 - 0:00	3.50	MIRU	01	В	Р		RURT,RIG UP FLOOR ,PUMPS,PITS,FLARE
7/24/2010	0:00 - 8:30	8.50	MIRU	01	В	Р		LINES,GAS BUSTER RIG UP PUMPS,PITS, FLARE LINES, BUSTER & MISC, P/U KELLY, INSTALL KELLY SPINNERS
	8:30 - 11:30	3.00	MIRU	09	Α	Р		CHANGE OUT DRILLING LINE, SLIP ON NEW SPOOL
	11:30 - 14:00	2.50	MIRU	14	Α	P		NIPPLE UP BOPS

9/15/2010

10:51:27AM

Operation Summary Report

/ell: NBU 102		· · · · · · · · · · · · · · · · · · ·			: 6/16/20	10	Spud Date: 6	/2//2010
roject: UTAH	-UINTAH		Site: NB	U 1022-	4GT			Rig Name No: PIONEER 69/69, PROPETRO/
ent: DRILLI	NG		Start Da	te: 3/12/	2009			End Date: 8/1/2010
ctive Datum: evel)	RKB @5,080.01ft (above Mear	Sea	UWI: S	W/NE/0/	10/S/22/	E/4/0/0/6/PM/N	1/1,863.00/E/0/1,882.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	14:00 - 18:00	4.00	MIRU	15	A	P		SAFETY MEETING W/ B&C QUICK TEST, R/U & TEST UPPER & LOWWER KELLY VALVES & FLOOR VALVES, PIPE RAMS, BLIND RAMS,INNE & OUTER KILL LINE, CHOKE & HCR VALVES, CHOKE MANIFOLD TO 250 PSI F/ 5 MIN & 5000 PSI F/ 10 MIN, ANNULAR TO 250 PSI F/ 5 MIN 500 PSI F/ 10 MIN, CASING TO 1500 PSI F/ 30 MIN
	18:00 - 19:00	1.00	MIRU	14	В	Р		INSTALL WEAR RING, STRAP DRILLSTRING
	19:00 - 23:30	4.50	PRPSPD	06	Α	Р		SAFETY MEETING W/ KIMZEY , R/U & P/U R/R TRICONE BIT,MOTOR,BHA & 51 JTS DP, TAG 2165'
	23:30 - 0:00	0.50	PRPSPD	24	Α	Р		INSTALL DRILLING RUBBER & DRIVE BUSHINGS PREPARE RIG F/ SPUD
7/25/2010	0:00 - 1:00 1:00 - 3:30	1.00	PRPSPD	23	-	P		INSTALL DRILLING RUBBER & DRIVE BUSHING SECURE STACK, PRESPUD INSPECTION
	1.00 - 3,30	2.50	DRLPRO	02	F	Р		DRILL CEMENT ,F.E. & OPEN HOLE F/ 2165' TO 2274'
	3:30 - 4:30	1.00	DRLPRO	02	В	Р		SPUD 03:30 7/25/2010 ,DRILL F/ 2274' TO 2334' (9 @ 60' HR)
	4:30 - 5:00	0.50	DRLPRO	05	С	P		CIRC BTMS UP
	5:00 - 7:30	2.50	DRLPRO	06	A	P		TOOH L/D TRICONE BIT & BIT SUB
	7:30 - 11:00	3.50	DRLPRO	06	A	P -		P/U Q506F & DIRECTIONAL TOOLS SCRIBE ,TIH
	11:00 - 14:30 14:30 - 15:00	3.50 0.50	DRLPRO	02 07	B	P P		DRILL F/ 2334' TO 2675' (341' @ 97.4' HR) WOB 15-18 ,RPM 60 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 90-74-82, ON/OFF 855-1080 ,DIFF 200-350 ,WATER W/ GEL & POLY SWEEPS RIG SERVICE
	15:00 - 18:00	3.00	DRLPRO	02	В	Р		DRILL F/ 2675' TO 2970' (295' @ 98.3' HR) WOB 15-18, RPM 60 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 95-80-87,ON/OFF 880-1100,DIFF 200-380 , WATER W/ GEL & POLY SWEEPS, (SLIDE 2781' TO 2791')
	18:00 - 18:30	0.50	DRLPRO	80	Α	Z		RIG REPAIR (WORK ON KELLY SPINNERS)
	18:30 - 19:30	1.00	DRLPRO	02	В	Р		DRILL F/ 2970' TO 3033' (63' @ 63' HR)
	19:30 - 20:00	0.50	DRLPRO	80	Α	Z		RIG REPAIR (WORK ON KELLY SPINNERS)
	20:00 - 0:00	4.00	DRLPRO	02	В	P		DRILL F/ 3033' TO 3470' (437' @ 1.9.2' HR) WOB 15-18,RPM 55-60 ,MMRPM 95 ,SPM 120 ,GPM 45 ,UP/SO/ROT 110-90-100, ON/OFF 1013-1312,DIFF 200-380 ,GEL & POLY SWEEP ,(SLIDE 3349'-335)
7/26/2010	0:00 - 10:30	10.50	DRLPRO	02	В	Р		DRILL F/ 3470' TO 4640' (1170' @ 111.4' HR) WC 15-18 ,RPM 55-60, MMRPM 95 ,SPM 120 ,GPM 45 UP/SO/ROT 112-94-103,ON/OFF 1013-1340, DIFF 250-400, SLIDES 3727' TO 3737' ,4073' TO 4083' ,4451' TO 4461' ,WATER W/ GEL & POLY SWEEP
	10:30 - 11:00	0.50	DRLPRO	07	Α	Р		RIG SERVICE
	11:00 - 18:00	7.00	DRLPRO	02	В	Р		DRILL F/ 4640' TO 5239' (599' @ 85.5' HR) WOB 15-18 ,RPM 55-60 ,MMRPM 95 ,SPM 120 ,GPM 45 ,UP/SO/ROT 134-108-117 ,ON/OFF 1074-1450 ,DII 230-440 ,WATER W/ GEL & POLY SWEEPS, (SLIDE 5050' TO 5060') 5' TO 8' FLARE
	18:00 - 0:00	6.00	DRLPRO	02	В	Р		DRILL F/ 5239' TO 5774' (535' @ 89.1' HR) WOB 15-18 ,RPM 50-55 ,MMRPM 95, SPM 120 ,GPM 45 ,UP/SO/ROT 155-120-127, ON/OFF 1550-1280 ,DI 200-450 ,WATER W/ GEL & POLY SWEEPS (LOS APPROX 500 BBLS WATER F/ 4900 TO 5700)START MUD UP @ 5700'

9/15/2010

10:51:27AM

Operation Summary Report

				U	perat	ion st	AITHET)	ary Kepor	
Well: NBU 102:	2-4GT			Spud Co	onductor	: 6/16/201	10	Spud Date: 6/	27/2010
Project: UTAH-	UINTAH			Site: NB	U 1022-	4GT			Rig Name No: PIONEER 69/69, PROPETRO/
Event: DRILLIN	IG	a - Table and south as man		Start Da	te: 3/12/	2009			End Date: 8/1/2010
Active Datum: F Level)	RKB @5,080).01ft (a		Sea	UWI: S	W/NE/0/1			/1,863.00/E/0/1,882.00/0/0
Date	Time Start-E	nd	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
7/27/2010	0:00 - 6		6.00	DRLPRO	02	В	Р		DRILL F/ 5774' TO 6153' (379' @ 63.1' HR) WOB 15-18 ,RPM 50-55, MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 155-120-127 ,ON/OFF 1590-1280, DIFF 200-430 ,WT 9.1,VIS 31 (SLIDES 5802' TO 5820')
	6:00 - 1:		7.00	DRLPRO	02	В	Р		DRILL F/ 6153' TO 6468' (315' 45' HR) WOB 15-18 RPM 50-55,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 155-128-135, ON OFF 1560-1250 ,DIFF 200-450 ,VIS 32 ,WT 9.4 (SLIDES 6373' TO 6383')
	13:00 - 1:		0.50	DRLPRO	07	Α	Р		RIG SERVICE
	13:30 - (10.50	DRLPRO	02	В	Р		DRILL F/ 6468' TO 7000' (532' @ 50.6' HR) WOB 18-22 ,RPM 45-50 ,MMRPM 195 ,SPM 120 ,GPM 454 ,UP/SO/ROT 168-130-138, ON/OFF 2000-1710 ,DIFF 260-420 ,WT 9.6 ,VIS 36 , (SLIDES 6750' TO 6760')
7/28/2010	0:00 - 2		2.50	DRLPRO	02	В	Р		DRILL F/ 7000' TO 7104' (104' @ 41.6' HR) WOB 20-22 ,RPM 45-50, MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 168-130-138,ON/OFF 2000-1730 ,DIFF 230-420 WT 9.6, VIS 36
	2:30 - 3		0.50	DRLPRO	07	Α	Р		RIG REPAIR WORK ON PUMPS
	3:00 - 1		13.50	DRLPRO	02	В	P		DRILL F/ 7104' TO 7728' (624' @ 46.2' HR) WOB 19-22 ,RPM 45-50 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 172-143-150 ,ON/OFF 2150-1880, DIFF225-420 ,WT 10.4 ,VIS 36 (SLIDES 7130' TO 7140', 7633'TO 7643' ,7696' TO 7701' 25' @ 9' HR)
	16:30 - 1		0.50	DRLPRO	07	A -	P -		RIG SERVICE ,FUNCTION PIPE RAMS
	17:00 - ():00	7.00	DRLPRO	02	В	Р		DRILL F/ 7728' TO 7990' (262' @ 37.4' HR) WOB 20-22 ,RPM 40-50 ,MMRPM 95, SPM 120 ,GPM 454 ,UP/SO/ROT 183-135-148, ON/OFF 2385-2020 ,DIFF 280-450 ,WT 11.1, VIS 37 (SLIDE 7885' TO 7900' 15' @ 9' HR)
7/29/2010	0:00 - 1		12.50	DRLPRO	02	В	Р		DRILL F/ 7990' TO 8452' (462' @ 36.9' HR) WOB 20-23 ,RPM 40-50 ,MMRPM 95 ,SPM 120 ,GPM 454 ,UP/SO/ROT 182-133-150 ,ON/OFF 2450-2170 ,DIFF 220-40, WT 12 ,VIS 42 ,2% LCM (SLIDE 8263' TO 8273' 10' @ 10' HR)
	12:30 - 1		0.50	DRLPRO	07	Α	₽		RIG SERVICE ,FUNTION ANNULAR
	13:00 - 1	8:00	5.00	DRLPRO	02	В	P		DRILL F/ 8452' TO 8609' (157' @ 31.4' HR) WOB 22-24 ,RPM 40-45 ,MMRPM 454 ,SPM 120 ,GPM 454 , UP/SO/ROT 184-133-153 ,ON/OFF 2770-2400 ,DIFF300-480 ,WT 12.3 ,VIS41 ,LCM 2 % ,(SLIDES 8452' TO 8457' , 8483' TO 8491' 13' TOTAL @ 6.5' HR)
	18:00 - 2	3:00	5.00	DRLPRO	02	В	Р		DRILL F/ 8609' TO 8788' TD @ 23:00 7/29/2010 (179' @ 35.8' HR) WOB 20-22,RPM 40-50, MMRPM 95 ,SPM 120, GPM 454 ,UP/SO/ROT 185-133-154,ON/OFF 2580-2200, DIFF 300-450,WT 12.6 ,VIS 43,LCM 2% LOST 170 BBLS F/ 7990-8788 SEEPAGE (SLIDE F/ 8641' TO 8660' 19' @ 25.3' HR
	23:00 - 0	0:00	1.00	DRLPRO	05	С	P		CIRC F/ SHORT TRIP
7/30/2010	0:00 - 0		0.50	DRLPRO	05	С	P		CIRC F/ SHORT TRIP
	0:30 - 6		5.50	DRLPRO	06	E	P		SHORT TRIP L/D DIRECTIONAL TOOLS (NO PROBLEMS ON TOOH)
	6:00 - 1: 10:30 - 1		4.50	DRLPRO	06	Ē	Р		P/U R/R TRICONE & BIT SUB TIH, TAG @ 7108'
	11:30 - 1		1.00	DRLPRO	03 06	A	P		WASH & REAM F/ 7108' TO 7171'
	12:00 - 1		0.50	DRLPRO	06	E	P		FINISH TIH TO 8668'
	13:00 - 1		1.00 2.00	DRLPRO DRLPRO	03 05	D C	P P		WASH 120' TO BOTTOM 4' FILL (PRECAUTIONARY) CIRC F/ LOGS ,MIX & PUMP PILL
	15:00 - 2		5.50	DRLPRO	06	A	Р		TOOH F/ LOGS (NO PROBLEMS)
	- L			3.12.110					100111/ LOGO (NO FROBLEMS)

9/15/2010

10:51:27AM

Vell: NBU 102	22-4GT		Spud Co	nductor	: 6/16/20	10	Spud Date: 6	/27/2010	
Project: UTAH	-UINTAH		Site: NB	U 1022-	4GT	and to be described and of more consequence, or		Rig Name No: PIONEER 69/69, PROPETRO/	
Event: DRILLII	NG		Start Da	te: 3/12/	2009		· · · · · · · · · · · · · · · · · · ·	End Date: 8/1/2010	
Active Datum: RKB @5,080.01ft (above Mean Level)			Sea	UWI: S	W/NE/0/	10/5/22	/E/4/0/0/6/PM/N	1/1,863.00/E/0/1,882.00/0/0	
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation	
	20:30 - 21:00	0.50	DRLPRO	07	Α	Р	·	RIG SERVICE	
	21:00 - 0:00	3.00	DRLPRO	11	С	P		SAFETY MEETING W/ RIG CREW & BAKER ATLAS ,R/U & RUN TRIPLE COMBO TO 8818' ,R/D LOGGERS	
7/31/2010	0:00 - 2:00	2.00	DRLPRO	11	С	Ρ		FINISH RUNNING TRIPLE COMBO LOGS (8818' LOGGERS DEPTH , R/D LOGGERS	
	2:00 - 7:30	5.50	DRLPRO	06	Α	Р		P/U R/R TRICONE & BIT SUB TIH	
	7:30 - 9:30	2.00	DRLPRO	05	C	Р		CIRC F/ LDDP ,SAFETY MEETING W/ RIG CREW & KIMZEY ,R/U L/D MACHINE	
	9:30 - 19:00	9.50	DRLPRO	06	Α	P		LDDP ,BREAK KELLY ,L/D BHA ,PULL WEAR RING	
	19:00 - 20:00	1.00	DRLPRO	12	Α	Р		SAFETY MEETING W/ RIG CREW & KIMZEY ,R/U CASERS	
	20:00 - 0:00	4.00	DRLPRO	12	С	Р		RUN 4.5,11.6,I-80 PRODUCTION CASING	
8/1/2010	0:00 - 3:00	3.00	DRLPRO	12	С	Р		RUN 207 JTS 4.5,11.6,I-80 BTC PRODUCTION CASING SHOE LANDED @ 8781.10,FLOAT @ 8737.43,MARKER JT @ 4306.04	
	3:00 - 4:30	1.50	DRLPRO	05	D	Р		CIRC F/ CEMENT ,R/D KIMZEY ,S/M W/ RIG CREW & BJ SERVICES	
	4:30 - 8:00 8:00 - 12:00	3.50 4.00	DRLPRO	12	E	P		R/U BJ SRVICES ,PUMP 40 BBL PREFLUSH WATER ,460 SX 12.6#,1.93 YLD LEAD ,1025 SX 14.3#,1.31YLD TAIL, DISPLACE W/ 136 BBLS CLATREAT WATER ,PLUG DOWN @ 06:54 ,FINAL LIF 2407 PSI,BUMP PLUG @ 3373 PSI HELD 5 MIN NO LOSS,FLOATS HELD,FULL RETURNS THROUGHOUT JOB ,1 BBL LEAD BACK TO PIT ,ESTIMATE TOP OF TAIL 3406',FLUSH STACK ,L/E LANDING JOINT NIPPLE DOWN BOP ,CLEAN PITS RELEASE RIG	

9/15/2010

			0				EGION <mark>ary Repo</mark> r	
Well: NBU 102	2-4GT		Spud Co	onductor: 6/	16/20	10	Spud Date: 6	/27/2010
Project: UTAH	-UINTAH	Arminature (Mr. M.) And an employed and a second design and design	Site: NB	U 1022-4G	Т			Rig Name No: PIONEER 69/69, PROPETRO/
Event: DRILLII	1G		Start Da					End Date: 8/1/2010
	RKB @5,080.01ft (above Mear				E/0/10/S/22/E/4/0/0/6/PM/N/1,863.00/E/0/1,882.00/0/0		
Level)		T = 1 T						
Date	Time Start-End	Duration (hr)	Phase		ub ode	P/U	MD From (ft)	Operation
	12:00 - 12:00	0.00	DRLPRO					CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28 SPUD DATE/TIME: 6/27/2010 15:00
								SURFACE HOLE: Surface From depth: 40 Surface To depth: 2,260 Total SURFACE hours: 27.00 Surface Casing size: 8 5/8 # of casing joints ran: 50 Casing set MD: 2,227.5 # sx of cement: 450 Cement blend (ppg:) 15.8 Cement yield (ft3/sk): 1.15 # of bbls to surface: 0 Describe cement issues: LOST CIRC ,CMT STAYED @ SURFACE Describe hole issues: HAD SOME GAS WHILE LDDS,SPOTTED 60 BBLS @ 2255' AND 40 BBLS @ 450' ,LOST TOTAL CIRC @ 1500' PRODUCTION: Rig Move/Skid start date/time: 7/23/2010 6:00 Rig Move/Skid finish date/time: 7/23/2010 15:00
								Total MOVE hours: 9.0 Prod Rig Spud date/time: 7/25/2010 1:00 Rig Release date/time: 8/1/2010 12:00 Total SPUD to RR hours: 179.0 Planned depth MD 8,774 Planned depth TVD 8,774 Actual MD: 8,788 Actual TVD: 8,786 Open Wells \$: \$740,307 AFE \$: \$981,700 Open wells \$/ft: \$84.24
								PRODUCTION HOLE: Prod. From depth: 2,274 Prod. To depth: 8,788 Total PROD hours: 105 Log Depth: 8818 Production Casing size: 4.5,11.6,I-80 BTC # of casing joints ran: 207 Casing set MD: 8,781.1 # sx of cement: 460 LEAD, 1025 TAIL Cement blend (ppg:) 12.6 LEAD 14.3 TAIL Cement yield (ft3/sk): 1.93 LEAD 1.31 TAIL Est. TOC (Lead & Tail) or 2 Stage: 18' LEAD, 3406 TAIL Describe cement issues: 1 BBL LEAD BACK TO PIT Describe hole issues: NO PROBLEMS DIRECTIONAL INFO:
				*******************************				Max angle: Departure: Max dogleg MD:

9/15/2010 10:51:27AM

				US	ROC	KIES F	REGION					
Operation Summary Report												
Well: NBU 102	22-4GT	Spud C	onductor	: 6/16/20	010	Spud Date: 6/27/2010						
Project: UTAH	I-UINTAH		Site: NE	3U 1022-	4GT			Rig Name No: GWS 1/1, MILES-GRAY 1/1				
Event: COMP	LETION		Start Da	ate: 8/6/2	010		End Date: 8/13/2010					
Active Datum: Level)	RKB @5,080.01ft	above Mean	Sea UWI: SW/NE/0/10/S/22				2/E/4/0/0/6/PM/N/1,863.00/E/0/1,882.00/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD Fro	Operation.				
8/9/2010	15:00 - 18:00	3.00	COMP	37	В	Р		R/U B C OUICK TEST, PRESSURE TEST CSG ANI FRAC VALVE TO 7000#, OK, MIRU CUTTER WIRELINE, RIH W/ PERF GUNS, PERF MESAVERDE STAGE #1 @ 8644' - 8647', 8461' - 8463', 8426' - 8428', 3-SPF, USING 3 3/8" SCALLOP GUNS, 23gm, 0.36HOLE, 90* PHS, 21 HOLES, SWI,				

Operation Summary Report

Well: NBU 1022-4GT	Spud Conductor: 6/16/2010	Spud Date: 6/27/2010
Project: UTAH-UINTAH	Site: NBU 1022-4GT	Rig Name No: GWS 1/1, MILES-GRAY 1/1
Event: COMPLETION	Start Date: 8/6/2010	End Date: 8/13/2010
Active Datum: RKB @5,080.01ft (abov Level)	e Mean Sea UWI: SW/NE/0/10/S	/22/E/4/0/0/6/PM/N/1,863.00/E/0/1,882.00/0/0

Date Time Duration Phase Code Sub P/U MD From Operation Start-End (hr) Code (ft)P

6:00 - 21:00 8/10/2010 15.00 COMP 48

JSA-SAFETY MEETING W/ HALLIBURTON AND CUTTER WIRELINE, R/U HALLIBURTON AND PRESSURE TEST SURFACE LINE TO 8000#, OK, (WAIT FOR SCALE INHIB,) (STG #1) WHP = #, START @ 9:45 AM BRK DN PERF @ 3696 # @ 5 B/M, INJ-RT 51 B/M. INJ-P = 5405 #, ISIP = 2794 #, F.G. = 0.77, PUMP 250 GAL 15% HCL AHEAD OF INJ, CALC ALL PERF OPEN, PUMP 1105 BBLS SLK WTR & 38733 # SAND, ISIP = 2700 #, F.G.= 0.76 , NPI = -94 #, MP = 6065 #, MR = 52.9 B/M, AP = 4895 #, AR = 51.3 B/M, 33733 # 30/50 SAND, 5000 # SLC SAND COMMENTS = OK

(STG #2) RIH W/ HALLIBURTON 8K CBP AND PER GUN, SET CBP @ 8383 ', PERF THE MESAVERDE @ 8351' - 8353', 3-SPF, 8272' -8274', 3-SPF, 8186' - 8189', 4-SPF, USING 3 3/8" SCALLOP GUNS, 23gm, 0.36 HOLE 90* PHS, 24 HOLES, WHP = 837 # BRK DN PERF @ 3204 # @ 5 B/M, INJ-RT 51.7 B/M, INJ-P = 4980 #, ISIP = 2645 #, F.G. = 0.76, CALC ALL PERF OPEN, PUMP 1616 BBLS SLK WTR & 65158 # SAND, ISIP = 2533 #, F.G.= 0.75, NPI = -112 #, MP = 6234 #, MR = 53.4 B/M, AP =4793 #, AR = 50.6 B/M, 60158 # 30/50 SAND, 5000 # SLC SAND COMMENTS = OK

(STG #3) RIH W/ HALLIBURTON 8K CBP AND PER GUN, SET CBP @ 8162', PERF THE MESAVERDE @ 8130' - 8132', 8062' - 8064', 8022' - 8024', 4-SPF, USING 3 3/8" SCALLOP GUNS. 23gm, 0.36 HOLE 90* PHS, 24 HOLES, WHP = 853 #, BRK DN PERF @ 3109 # @ 5.6 B/M, INJ-RT= 50.6 B/M, INJ-P = 5686 #, ISIP = 2547 #, F.G. = 0.75, CALC ALL PERF OPEN, PUMP 1368 BBLS SLK WTR & 55105 # SAND, ISIP = 2210 #, F.G.= 0.71 NPI = -337 #, MP = 6060 #, MR = 53.1 B/M, AP =4728 #, AR = 48.1 B/M, 50105 # 30/50 SAND, 5000 # SLC SAND.

COMMENTS = OK

(STG #4) RIH W/ HALLIBURTON 8K CBP AND PER GUN, SET CBP @ 7947 ', PERF THE MESAVERDE @ 7845' - 7847', 7784' - 7786', 7727' - 7729', 7637' - 7639', 3-SPF, USING 3 3/8" SCALLOP GUNS, 23gm, 0.36 HOLE 90* PHS, 24 HOLES, WHP = 399 #. BRK DN PERF @ 3415 # @ 5.9 B/M, INJ-RT= 49.7 B/M, INJ-P = 5119 #, ISIP = 2386 #, F.G. = 0.75 CALC ALL PERF OPEN, PUMP 1135 BBLS SLK WTR & 42927 # SAND, ISIP = 2220 #, F.G.= 0.73, NPI = -166 #, MP = 6232 #, MR = 50.2 B/M, AP =5378 #, AR = 48 B/M, 37927# 30/50 SAND, 5000 # SLC SAND. COMMENTS = COMPUTOR TROUBLE

(STG #5) RIH W/ HALLIBURTON 8K CBP AND PER GUN, SET CBP @ 7574 ', PERF THE MESAVERDE @ 7471 - 7474', 3-SPF, 7432' - 7434', 4-SPF, 7376' - 7378', 3-SPF, USING 3 3/8" SCALLOP GUNS, 23gm, 0.36 HOLE 90* PHS, 23

US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-4GT Spud Conductor: 6/16/2010 Spud Date: 6/27/2010 Project: UTAH-UINTAH Site: NBU 1022-4GT Rig Name No: GWS 1/1, MILES-GRAY 1/1 **Event: COMPLETION** Start Date: 8/6/2010 End Date: 8/13/2010 Active Datum: RKB @5,080.01ft (above Mean Sea UWI: SW/NE/0/10/S/22/E/4/0/0/6/PM/N/1,863.00/E/0/1,882.00/0/0 Date Time Duration Phase Sub P/U Code MD From Operation Start-End (hr) Code (ft) HOLES, WHP = 465 #, BRK DN PERF @ 2818 # @ 5.7 B/M, INJ-RT = 50.3 B/M, INJ-P = 5587 #, ISIP = 1635 #, F.G. = 0.66, CALC ALL PERF OPEN, PUMP 855 BBLS SLK WTR & 31340 # SAND, ISIP = 2440 #, F.G.= 0.76, NPI = 805 #MP = 6037 #, MR = 50.5 B/M, AP= 4443 #, AR = 48.8 B/M, 26340 # 30/50 SAND, 5000 # SLC SAND. COMMENTS = SLOW SRART (STG #6) RIH W/ HALLIBURTON 8K CBP AND PER GUN, SET CBP @ 7326 ', PERF THE MESAVERDE @ 7254' - 7256', 4-SPF, 7162' - 7164', 3-SPF, 7106' - 7107', 4-SPF, 7050' - 7052', 3-SPF. USING 3 3/8" SCALLOP GUNS, 23gm, 0.36 HOLE 90* PHS, 24 HOLES, WHP = 477 # BRK DN PERF @ 2882 # @ 4.7 B/M, INJ-RT = 50 B/M, INJ-P = 6111 #, ISIP = 2290 #, F.G. = 0.75 , CALC ALL PERF OPEN, PUMP 785 BBLS SLK WTR & 28840 # SAND, ISIP = 2475 #, F.G.= 0.78, NP1 = 185 #, MP = 6105 #, MR = 50.3 B/M, AP =5494 #, AR = 49.2 B/M, 23840 # 30/50 SAND, 5000 # SLC SAND. COMMENTS = OK, DENINOMETER OFF (STG #7) RIH W/ HALLIBURTON 8K CBP AND PER GUN, SET CBP @ 6910 ', PERF THE MESAVERDE @ 6804' - 6810', 4-SPF, USING 3 3/8" SCALLOP GUNS, 23gm, 0.36 HOLE 90* PHS, 24 HOLES, WHP = 150 #, BRK DN PERF @ 2217 # @ 4.6 B/M, INJ-RT = 50.1 B/M. INJ-P = 4570 #, ISIP = 1444 #, F.G. = 0.64 , CALC 70% PERF OPEN, PUMP 1020 BBLS SLK WTR & 40492 # SAND, ISIP = 2430 #, F.G.= 0.79 , NPI = 986 #, MP = 4975 #, MR = 50.1 B/M, AP =4032 #, AR = 48.9 B/M, 35492 # 30/50 SAND, 5000 # SLC SAND. COMMENTS = OK (STG #8) RIH W/ HALLIBURTON 8K CBP AND PER GUN, SET CBP @ 6344 ', PERF THE WASATCH @ 6241' - 6244', 6082' - 6085', 4-SPF USING 3 3/8" SCALLOP GUNS, 23gm, 0.36 HOLE 90* PHS, 24 HOLES, WHP = 93 #, BRK DN PERF @ 2238 # @ 4.7 B/M, INJ-RT = 50.2 B/M, INJ-P = 4485 #, ISIP = 1794 #, F.G. = 0.72 , CALC 85% PERF OPEN, PUMP 536 BBLS SLK WTR & 24755 # SAND, ISIP = 1784 #, F.G.= 0.72, NPI = -10 #, MP = 4716 #, MR = 50.2 B/M, AP =3740 #, AR = 48.4 B/M, 19755 # 30/50 SAND, 5000 # SLC SAND. COMMENTS = OK (KILL PLUG) RIH W/ HALLIBURTON 8K CBP, SET CBP @ 6032', R/D WIRELINE AND FRAC CREW, SWI SD. TOTAL FLUID = 8420 BBLS SLK WTR TOTAL SAND = 327350# OTTAWA SAND 7:00 - 11:00 8/12/2010 4.00 COMP 30 Α Р ROAD RIG AND EQUIP FROM NBU 14 B PAD TO LOC MIRU, N/D FRAC VALVE, N/U BOPS, R/U TBG EQUIP.

			O	perat	ion S	umm	ary Repor	t		
Well: NBU 102	2-4GT		Spud C	onductor	: 6/16/20	010	Spud Date: 6/	/27/2010		
Project: UTAH-	UINTAH		Site: NE	3U 1022-	4GT			Rig Name No: GWS 1/1, MILES-GRAY 1/1		
Event: COMPL	ETION		Start Da	te: 8/6/2	010	T		End Date: 8/13/2010		
Active Datum: I Level)	ctive Datum: RKB @5,080.01ft (above Mean Se evel)			UWI: S	W/NE/0	/10/S/22	/E/4/0/0/6/PM/N	,863.00/E/0/1,882.00/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation		
8/13/2010	11:00 - 16:00 7:00 - 7:15	5.00	COMP	31	I	P	V	TALLY TBG ON TRAILER, P/U 3 7/8" BIT AND POBS, TIH W/ 2 3/8" J-55 TBG, TAG AT 6035', R/U POWER SWIVEL AND PUMP, PREPARE TO DRILL OUT IN AM, SWI, SDFN, JSA-SAFETY MEETING		
	7:15 - 17:00	9.75	COMP	44	С	Р		NO P[RESSURE ON WELL, ESTB CIRC DOWN TBG OUT CSG, C/O SAND FROM 5990' TO 6032'.		
								(PLUG #1) 6332', DRILL OUT HALLIBURTON 8K CBP IN 5 MIN, 100# DIFF, RIH TAG SAND @ 6324', C/O 20' SAND, FCP = 50#,		
								(PLUG #2) 6344', DRILL OUT HALLIBURTON 8K CBP IN 4 MIN, 200# DIFF, RIH TAG SAND @ 6850', C/O 60' SAND, FCP = 100#,		
								(PLUG #3) 6910', DRILL OUT HALLIBURTON 8K CBP IN 4 MIN, 200# DIFF, RIH TAG SAND @ 7276', C/0 50, SAND, FCP = 125#,		
								(PLUG #4) 7326', DRILL OUT HALLIBURTON 8K CBP IN 6 MIN, 200# DIFF, RIH TAG SAND @ 7534 ', C/0 50' SAND, FCP = 300 #,		
								(PLUG #5) 7574', DRILL OUT HALLIBURTON 8K CBP IN 6 MIN, 500 # DIFF, RIH TAG SAND @ 7887', C/0 60 ' SAND, FCP = 500 #,		
1								(PLUG #6) 7947', DRILL OUT HALLIBURTON 8K CBP IN 7 MIN, 500# DIFF, RIH TAG SAND @ 8132 ', C/O 30' SAND, FCP = 700 #,		
								(PLUG #7) 8162', DRILL OUT HALLIBURTON 8K CBP IN 7 MIN, 300 # DIFF, RIH TAG SAND @ 8353 ', C/O 30' SAND, FCP = 850 #,		
								(PLUG #8) 8383', DRILL OUT HALLIBURTON 8K CBP IN 8 MIN, 200# DIFF, RIH TAG SAND @ 8655', C/O 80' SAND TO 8735 ' PBTD, FCP = 1000#, CIRC WELL CLEAN, P/O LAYED DN 19 JTS ON TRAILER, LAND TBG W/ WEATHERFORD HANGER, EOT @ 8142.02', N/D BOPS, DROP BALL DN TBG, N/U WELL HEAD, PUMP OFF BIT SUB @ 1800#, WAIT 30 MIN FOR BIT TO FALL, OPEN WELL TO FBT W/ 800# FTP, 2400# SICP, TURN WELL OVER TO FLOW BACK CREW, W/ 7230 BBLS WTR LTR,		
								KB = 18.00' HANGER = .83' 257 JTS 2 3/8" J-55 TBG = 8120.99' XN-NIPPLE, POBS = 2.20'		
								EOT = 8142.02'		
8/14/2010	7:00 -		PROD	33	Α			284 JTS 2 3/8" J-55 TBG DELV. 257 JTS 2 3/8" J-55 TBG LANDED 27 JTS 2 3/8" J-55 TBG RETURNED 7 AM ELBY DEDORT: CR 2050# TB 2350# 20/64"		
5,17,2010			, KOD	JJ	^			7 AM FLBK REPORT: CP 3050#, TP 2250#, 20/64" CK, 32 BWPH, HVY SAND, - GAS TTL BBLS RECOVERED: 1606 BBLS LEFT TO RECOVER: 6536		
	13:25 -		PROD	50				WELL TURNED TO SALES @ 13:25 HR ON 8/14/10 - 887 MCFD, 960 BWPD, CP 3150#, FTP 2300#, CK 20/64"		

9/15/2010 10:52:32AM

	Operation Summary Report											
Well: NBU 102	2-4GT		Spud C	onductor	: 6/16/20	010	Spud Date: 6/	27/2010				
Project: UTAH-	Site: NB	U 1022-	4GT			Rig Name No: GWS 1/1, MILES-GRAY 1/1						
Event: COMPL	Start Da	te: 8/6/2	010	T	*	End Date: 8/13/2010						
Active Datum: Level)	RKB @5,080.01ft	(above Mean	Sea	UWI: S	W/NE/0	/10/S/22/	/E/4/0/0/6/PM/N/	/1,863.00/E/0/1,882.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation				
8/15/2010	7:00 -			33	Α			7 AM FLBK REPORT: CP 3000#, TP 2150#, 20/64" CK, 23 BWPH, HVY SAND, 3.1 GAS TTL BBLS RECOVERED: 2281 BBLS LEFT TO RECOVER: 5861				
8/16/2010	7:00 -			33	Α		7 AM FLBK REPORT: CP 2850#, TP 2025#, 20/64" CK, 22 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 2781 BBLS LEFT TO RECOVER: 5361					
8/17/2010	7:00 -			33	Α			7 AM FLBK REPORT: CP 2675#, TP 1900#, 20/64" CK, 15 BWPH, MED SAND, 3 GAS TTL BBLS RECOVERED: 3242 BBLS LEFT TO RECOVER: 4900				
8/18/2010	7:00 -			33	Α			7 AM FLBK REPORT: CP 2600#, TP 1850#, 20/64" CK, 14 BWPH, LIGHT SAND, 2.9 GAS TTL BBLS RECOVERED: 3599 BBLS LEFT TO RECOVER: 4543				

9/15/2010

10:52:32AM

Sundry Number: 1-6377a Approval of this: 43047401910000

Action is Necessary

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	G	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191		
SUNDF	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for proposition—hole depth, reenter plu DRILL form for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-04GT		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047401910000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE N Street, Suite 600, Denver, CO, 80217 3779	720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1863 FNL 1882 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSHI	IP, RANGE, MERIDIAN: Township: 10.0S Range: 22.0E Meridian: S		STATE: UTAH		
11. CHE	CK APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPORT,	OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	✓ CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME		
7/5/2011		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
		FRACTURE TREAT	□ NEW CONSTRUCTION		
SUBSEQUENT REPORT Date of Work Completion:		□ PLUG BACK			
		PLUG AND ABANDON			
SPUD REPORT		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	☐ TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	□ WATER SHUTOFF □	SI TA STATUS EXTENSION	APD EXTENSION		
inaport Dutch	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: Wellhead Repair		
12. DESCRIBE PROPOSED OR CO	 DMPLETED OPERATIONS. Clearly show all pertiner	nt details including dates, depths, v	olumes, etc.		
	ts approval to conduct wellhead/		;		
	ell location. Please find the attach		Accepted by the		
propos	sed repair work on the subject we	ell location.	Utah Division of		
			Oil, Gas and Mining		
		Da	ate: $07/11/2011$		
			1 Ist KlimA		
		B	y:		
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II			
SIGNATURE N/A		DATE 7/5/2011			

WORKORDER #: 88119336

Name: <u>NBU 1022-4GT</u> 7/1/2011

Surface Location: SWNE Sec. 4, T10S, R22E

Uintah County, UT

API: 4304740191 **LEASE#:** UTU-01191

ELEVATIONS: 5069' GL 5087' KB

TOTAL DEPTH: 8788' **PBTD:** 8735'

SURFACE CASING: 8 5/8", 28# J-55 @ 2241'

PRODUCTION CASING: 4 1/2", 11.6#, I-80 @ 8781'

TOC @ 500' per CBL (with min 50' isolation)

PERFORATIONS: Wasatch 6082' - 6244'

Mesaverde 6804' – 8647'

Tubular/Borehole	Drift	Collapse psi	Burst psi	Capacities			
	inches			Gal./ft.	Cuft/ft.		Bbl./ft.
2.375" 4.7# J-55 tbg.	1.901	8100	7700	0.1624		0.02171	0.00387
4.5" 11.6# I-80	3.875	6350	7780	0.6528		0.0872	0.0155
8.625" 28# J-55	8.097	1370	2950	2.6223		0.3505	0.0624
Annular Capacities							
2.375" tbg. X 4 1/2" 11.6# csg		_		0.4227	0.0565		0.01

GEOLOGICAL TOPS:

1136' Green River 1456' Bird's Nest 1954' Mahogany 4368' Wasatch 6826' Mesaverde

NBU 1022-4GT- WELLHEAD REPAIR PROCEDURE

PREP-WORK PRIOR TO MIRU:

- 1. Dig out down to the 2" surface casing valve or to the valve on the riser off the surface casing.
- 2. Install a tee with 2 valves, with a pressure gauge and sensor on one valve.
- 3. Open casing valve and record pressures.
- 4. Install nipple and steel hose on the other valve, the relief valve,. Do not use hammer unions. No impact equipment or tools to be used for any of this installation. Extend hose and hard piping to a downwind location at least 100' from the wellhead. Consider installing a manifold so that vent area could be in two locations approx. 90 degrees apart from the wellhead.
- 5. Open the relief valve and blow well down to the atmosphere.
- 6. Make a determination of amount of gas flow, either by installation of a choke nipple, bucket test or other.
- 7. Shut well in. Observe for rate of build-up by utilizing sensor data. Do not build-up for more than 24 hours. Vent gas through the vent line and leave open to the atmosphere.

WORKOVER PROCEDURE:

- 1. MIRU workover rig.
- 2. Kill well with 10# brine / KCL (dictated by well pressure).
- 3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
- 4. POOH w/ tubing laying down extra tubing.
- 5. Rig up wireline service. RIH and set CBP @ ~6032'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.
- 6. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.
- 7. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

CUT/PATCH PROCEDURE:

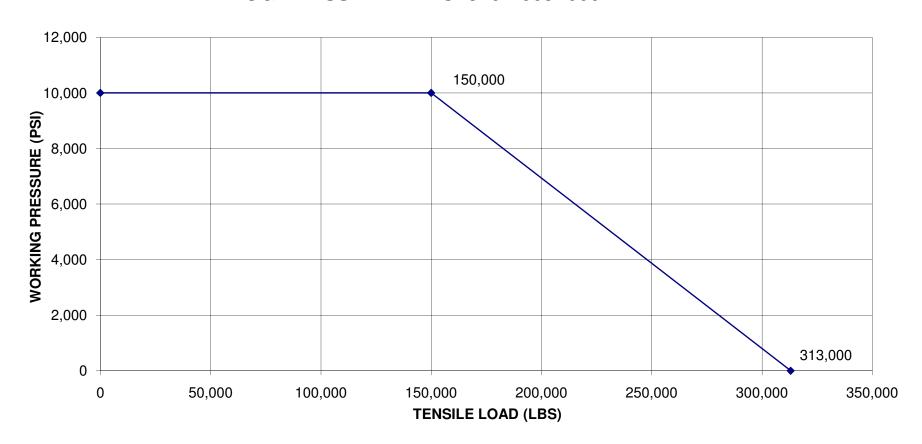
- 1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
- 2. POOH, LD cutters and casing.
- 3. PU 7 3/8" overshot with 4 ½" right hand standard wicker grapple, 1 4 ¾" drill collar with 3 ½" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshot, POOH, and lay down.
- 4. TIH w/ skirted mill and dress off the fish top for approximately ½ hour. TOOH.
- 5. PU & RIH w/ $4\frac{1}{2}$ " 10k external casing patch on $4\frac{1}{2}$ " P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.
- 6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 3500 psi.
- 7. Install slips. Land casing w/ 80,000# tension.
- 8. Cut-off and dress 4 ½" casing stub.
- 9. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~5982'. Clean out to PBTD (8735').
- 10. POOH, land tbg and pump off POBS.
- 11. NUWH, RDMO. Turn well over to production ops.

BACK-OFF PROCEDURE:

- 1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
- 2. POOH, LD cutters and casing.
- 3. PU 4 ½" overshot. RIH, latch fish. Pick string weight to neutral.
- 4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.
- 5. Back-off casing, POOH.

- 6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to ±7000 ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.
- 7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 3500 psi.
- 8. Install slips. Land casing w/ 80,000# tension.
- 9. Cut-off and dress 4 ½" casing stub.
- 10. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~5982'. Clean out to PBTD (8735').
- 11. POOH, land tbg and pump off POBS.
- 12. NUWH, RDMO. Turn well over to production ops.

STRENGTH DATA FOR LOGAN 5.88" OD "L" TYPE CSG PATCH 4-1/2 CASING, 10K PSI MAX WP 125K YIELD MAT'L LOGAN ASSEMBLY NO. 510L-005 -000



COLLAPSE PRESSURE: 11,222 PSI @ 0 TENSILE 8,634 PSI @ 220K TENSILE

Tensile Strength @ Yield: Tensile Strength w/ 0 Int. Press.= 472,791lbs. Tensile Strength w/ 10K Int. Press.= 313,748lbs.

DATA BY SLS 11/16/2009

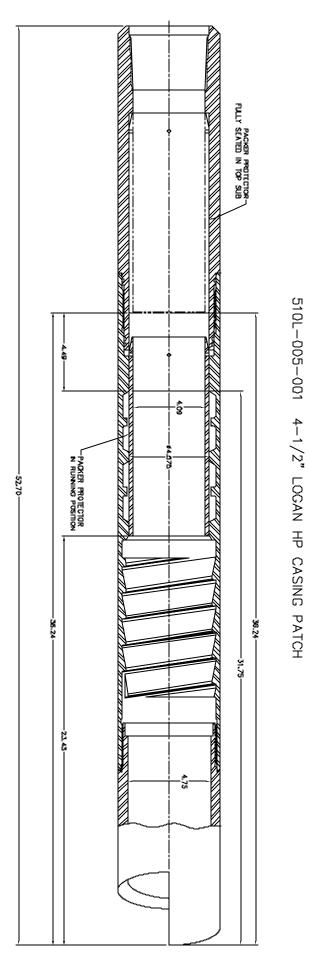


Logan High Pressure Casing Patches Assembly Procedure

All parts should be thoroughly greased before being assembled.

- 1. Install all four Logan Type "L" Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.
- 2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector through the four Type "L" Packers.
- 3. Align Shear Pin Holes in Packer Protector so that the holes have just passed into the counter bore at the Top Sub end, refer to diagram. The Packer Protector is provided with four Shear Pin Holes. Use only two holes, 180 degrees apart and install the pins.
- 4. Screw the Basket Grapple in from the lower end of the Bowl, using left-hand rotation. The Tang Slot in the Basket Grapple must land in line with the slot in the Bowl.
- 5. Insert the Basket Grapple Control into the end of the Bowl. Align Tang on the Basket Grapple Control with the Tang Slot of the Bowl and Basket Grapple. This secures the Bowl and the Basket Grapple together.
- 6. Install the Cutlipped Guide into the lower end of the Bowl.
- 7. Install O-Rings on the two five-foot long Extensions. Screw the first Extension into the top end of the Bowl. Screw the second Extension into the top end of the first Extension.
- 8. Install O-Ring on Top Sub. Screw Top Sub into top end of second Extension.

Follow recommended Make-Up Torque as provided in chart.



Sundry Number: 22508 API Well Number: 43047401910000

	STATE OF UTAH			FORM 9
ı	DEPARTMENT OF NATURAL RESOL DIVISION OF OIL, GAS, AND N		3	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191
SUNDR	Y NOTICES AND REPORT	SON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, IFOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 1022-04GT		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047401910000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80		NE NUMBER: 9 720 929-6	9. FIELD and POOL or WILDCAT: 5M&TUTRAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1863 FNL 1882 FEL				COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 04 Township: 10.0S Range: 22.0E M	eridian:	S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDIC	CATE N	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
	ACIDIZE		ALTER CASING	✓ CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ F	RACTURE TREAT	NEW CONSTRUCTION
9/6/2011	OPERATOR CHANGE	П.	PLUG AND ABANDON	PLUG BACK
 	PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:				
	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
DRILLING REPORT	L TUBING REPAIR		ENT OR FLARE	☐ WATER DISPOSAL
Report Date:	WATER SHUTOFF	□ :	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	✓ (DTHER	OTHER:
The operator has co	completed operations. Clearly sho oncluded the wellhead/cas ase see the attached chro details of the operation	sing re nolog	epairs on the subject ical history for the	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 27, 2012
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NU 720 929-6304	MBER	TITLE Regulartory Analyst	
SIGNATURE N/A			DATE 1/24/2012	

Sundry Number: 22508 API Well Number: 43047401910000

			0				EGION ary Repor	t
Well: NBU 102	22-4GT		Spud Co	nductor	: 6/16/20	010	Spud Date: 6/	27/2010
Project: UTAH	-UINTAH		Site: NB	U 1022-	4GT			Rig Name No: LEED 698/698
Event: WELL \	WORK EXPENSE		Start Dat	te: 9/1/2	011			End Date: 9/6/2011
Active Datum:	RKB @5,080.00ft (above Mean	Sea Leve	UWI: S	W/NE/0	/10/S/22	E/4/0/0/6/PM/N	/1,863.00/E/0/1,882.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/1/2011	7:00 - 7:30	0.50	ALL	30	G	Р		ROAD RIG F/ NBU 1022-8GT TO NBU 1022-4GT.
	7:30 - 8:00	0.50	ALL	48		Р		HSM, REVIEW TRIPPING TBG, WIRELINE SAFETY.
	8:00 - 9:00	1.00	ALL	30	Α	Р		MIRU.
	9:00 - 9:45	0.75	ALL	47	Α	Р		FCP. 131 PSI. FTP. 131 PSI. BLEW TBG DWN, CONTROL TBG W/ 10 BBLS, ND WH, NU BOP'S, RU FLOOR & TBG EQUIPMENT, UNLAND TBG,
	9:45 - 12:15	2.50	ALL	31	I	Р		POOH 257 JTS. 2-3/8 J-55 TBG, LD XN.
	12:15 - 15:00	2.75	ALL	34	Γ	Р		RU J-W WIRELINE COMPANY, RIH 4-1/2 BAKER 10K CIBP, SET CIBP @ 6020', POOH TOOLS, RD J-W WIRELINE COMPANY, FILL 4-1/2 CSG W/ T-MAC, P.T. PLUG TO 3000 PSI. SWI, SDFN.
9/2/2011	7:00 - 7:30	0.50	ALL	48		Р		HSM, REVIEW BACK-OFF PROCEDURE
	7:30 - 8:00	0.50	ALL	47	Α	Р		ND BOP'S, ND CSG BOWL, RU PWR SWVL.
	8:00 - 9:30	1.50	ALL	31	В	Р		PU INTERNAL CSG CUTTER & RIH, CUT CSG @ 3' F/ SURFACE, POOH, LD CUTTER & CSG MANDRAL, RD PWR SWVL, PU 4-1/2 OVERSHOT, RIH, LATCH FISH, MIRU CSG CREW & WIRELINE SERVICES, RIH & STRING SHOT CSG COLLAR, BACK-OFF CSG PUP JNT, POOH, PU NEW 10' PUP JNT, TAG CSG TOP, THREAD INTO CSG & TORQUE 4-1.2 CSG TO 7000# W/ 19 ROTATIONS, PU CSG TO 100,000# TENSION.
	9:30 - 10:30	1.00	ALL	33	С	Р		RU B&C QUICK TEST, P.T. 4-1/2 CSG TO 1000 PSI. LOST 6 PSI. IN 15 MINS, P.T. 4-1/2 CSG TO 3500 PSI. LOST 25 PSI. IN 30 MINS, RD B&C QUICK TEST.
	10:30 - 12:00	1.50	ALL	47	С	Р		RU WEATHERFORD WELL HEAD, SET C-21 SLIPS, LAND 4-1/2 CSG W/ 85,000# TENSION, CUT-OFF 4-1/2 CSG & DRESS CSG STUB, INSTALL FLANGE & CROSSOVER SPOOL, TORQUE ALL 1-7/8 BOLTS TO SPECIFICATION, RD WEATHERFORD WELL HEAD,
	12:00 - 12:30	0.50	ALL	47	Α	Р		NU CSG BOWL, NU BOP'S, RU FLOOR & TBG EQUIPMENT.
	12:30 - 15:00	2.50	ALL	31	I	Р		PU 3-7/8 MILL & RIH W/ 191 JTS. 2-3/8 J-55 TBG, TAG CIBP @ 6020', LD 1 JNT. NU PWR SWVL, EOT @ 5889' W/ 190 IN WELL, SWI, SDFWE.
9/6/2011	6:30 - 7:00	0.50	ALL	48		Р		HSM, JSA FOAM UNIT

9/16/2011 11:43:12AM 1

Sundry Number:	22508	APT We	ע ווי	Jumbe	r: 4	30474019	10000			
	US ROCKIES REGION									
Operation Summary Report										
Well: NBU 1022-4GT Spud Conductor: 6/16/2010 Spud Date: 6/27/2010										
Project: UTAH-UINTAH		Site: NB	U 1022-	4GT			Rig Name No: LEED 698/698			
Event: WELL WORK EXPENSE		Start Da	te: 9/1/2	011			End Date: 9/6/2011			
Active Datum: RKB @5,080.00f	t (above Mear	n Sea Leve	UWI: S	SW/NE/0	/10/S/22	/E/4/0/0/6/PM/N/	/1,863.00/E/0/1,882.00/0/0			
Date Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation			
7:00 - 17:00	10.00	ALL	44	D	P		RU TECH FOAM, EST CIRC IN 15 MINS, D/O CIBP @ 6020' IN 40 MINS, RD PWR SWVL, RIH TAG @ 8720' W/ 259 JTS TBG, RU PWR SWVL, EST CIRC IN 5 MINS, D/O 20' OF SCALE IN 32 MINS, RD PWR SWVL, RIH TAG @ 8720' CIRC CLEAN FOR 30 MINS, RD FOAM UNIT, POOH LD 19 JTS. ON TRAILER, LD STRING FLOAT, POOH TBG & LD MILL, PU 1.875 XN HALF POBS & TIH W/ 139 JTS. RU SWAB EQUIPMENT, RUN BROACH, RIH W/128 JTS., RUN BROACH AGAIN, LAND TBG, W/ 257 JTS, ND BOP'S, NU WH, RDMO. MOVE TO BITTER CREEK 11-22-4I. TBG DETAIL KB			

9/16/2011 11:43:12AM 2

RECEIVED: Jan. 24, 2012

Sundry Number: 48590 API Well Number: 43047401910000 FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

	STATE OF UTAH		FORM 9
1	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MINII		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191
SUNDR	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-04GT		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047401910000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	F h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 110/ATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1863 FNL 1882 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 04 Township: 10.0S Range: 22.0E Meridia	nn: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
The operator request the subject well to the referenced well	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION COMPLETED OPERATIONS. Clearly show all sts authorization to Temporar accommodate recompletion location. Please see the attact the referenced Federal Well w Thank you.	ily Abandon or Shut-In drilling operations for thed procedure. This is	The second secon
NAME (PLEASE PRINT)	PHONE NUMBE	R TITLE	
Matthew P Wold SIGNATURE	720 929-6993	Regulatory Analyst I DATE	
N/A		3/7/2014	

Sundry Number: 48590 API Well Number: 43047401910000

Well Name: <u>NBU 1022-4GT</u> 2/26/14

Surface Location: SWNE Sec. 4, T10S, R22E

Uintah County, UT

Recommended action for disposition of well bore:

This well will be temporarily abandoned to accommodate drilling operations in one of 2 ways. We will either plug the wellbore as outlined in the attached procedure or Shut-In in the following manner: a) Kill well, pull EOT to above top set of perfs, install tubing hanger with internal threads and set VR plug, install a flange over the tbg hanger, removal of master valve, set VR plugs in casing head at surface, and removal of casing wing valves, replaced with blind flanges.

API: 4304740191 **LEASE#:** U-01191

ELEVATIONS: 5062' GL 5080' KB

Note: GL depth according to CBL is 5069' & 5087'

TOTAL DEPTH: 8781' **PBTD:** 8736'

SURFACE CASING: 9 5/8", 36# J-55 @ 2242'

PRODUCTION CASING: 4 1/2", 11.6# I-80 @ 8781'

Estimated TOC @ Surface per CBL

PRODUCTION TUBING: 2 3/8" J-55 TBG @ 8142' (workover rpt 11/6/07)

PERFORATIONS: WASATCH 6082' – 8244'

MESAVERDE 6804' - 8647'

Tubular/Borehole	Drift	Collapse psi	Burst psi	Capacities				
	inches			Gal./ft.	Cuft/ft.		Bbl./ft.	
2.375" 4.7# J-55 tbg.	1.901	8100	7700	0.1624		0.02171	0.00387	
4.5" 11.6# I-80	3.875	6350	7780	0.6528		0.0872	0.0155	
9.625" 36# J-55	8.921	2020	3520	3.247		0.434	0.0773	
Annular Capacities								
2.375" tbg. X 4 ½" 11.6# c	sg		0.4227	0.0565		0.01		

GEOLOGICAL TOPS:

4368' Wasatch 6826' Mesaverde

RECEIVED: Mar. 07, 2014

Sundry Number: 48590 API Well Number: 43047401910000

NBU 1022-4GT TEMPORARY ABANDONMENT PROCEDURE

GENERAL

- H2S MAY BE PRESENT. CHECK FOR H2S AND TAKE APPROPRIATE PRECAUTIONS.
- CEMENT QUANTITIES BELOW ASSUME NEAT CLASS G, YIELD 1.145 CUFT./SX. IF A DIFFERENT PRODUCT IS USED, WELLSITE PERSONNEL ARE RESONSIBLE FOR CORRECTING QUANTITIES TO YIELD THE STATED SLURRY VOLUME. WHEN SQUEEZING, INCLUDE 10% EXCESS PER 1000' OF DEPTH.
- TREATED FRESH WATER WILL BE PLACED BETWEEN ALL PLUGS INSTEAD OF BRINE.
- ALL DISPLACEMENT FLUID SHALL CONTAIN CORROSION INHIBITOR AND BIOCIDE. PREMIX 5 GALLONS PER 100 BBLS FLUID.
- NOTIFY BLM/UDOGM 24 HOURS BEFORE MOVING ON LOCATION.

PROCEDURE

Note: An estimated 24 sx of cement needed to perform procedure.

- 1. MIRU. KILL WELL AS NEEDED. ND WH. NU AND TEST BOPE. PULL TUBING.
- 2. RU WIRELINE. ENSURE WELLBORE IS CLEAN. A GPS READING WILL NEED TO BE TAKEN AT THE WELL SITE AND RECORDED IN OPENWELLS. PLEASE TAKE IT TO THE 6TH DECIMAL PLACE.
- 3. RUN GYRO SURVEY.
- 4. PLUG #1, ISOLATE MV/WASATCH PERFORATIONS (6082' 8647'): RIH W/ 4 ½" CBP. SET @ ~6030'. RELEASE CBP, PUH 10', BRK CIRC W/ FRESH WATER. PRESSURE TEST CASING TO 500 PSI. INFORM ENGINEERING IF IT DOESN'T TEST. DISPLACE A MINIMUM OF 8 SX/ 1.6 BBL/ 9.2 CUFT. ON TOP OF PLUG. PUH ABOVE TOC (~5930'). REVERSE CIRCULATE W/ TREATED FRESH WATER.
- 5. PLUG #2, PROTECT TOP OF WASATCH (4368'): PUH TO ~4475'. BRK CIRC W/ FRESH WATER. DISPLACE A MINIMUM OF 16 SX / 3.3 BBL / 18.3 CUFT AND BALANCE PLUG W/ TOC @ ~4265' (210' COVERAGE). PUH ABOVE TOC. REVERSE CIRCULATE W/ TREATED FRESH WATER.
- 6. LOWER WELLHEAD TO GROUND LEVEL TO ACCOMMODATE DRILLING OPS AND INSTALL MARKER PER UDOGM GUIDELINES.
- 7. RDMO. TURN OVER TO DRILLING OPERATIONS.

HMP 2/26/14

RECEIVED: Mar. 07, 2014

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191
SUNDF	RY NOTICES AND REPORTS (ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-04GT
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047401910000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-0	9. FIELD and POOL or WILDCAT: 1NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1863 FNL 1882 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 04 Township: 10.0S Range: 22.0E Merid	ian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
6/19/2014	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	✓ TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
12 DESCRIPE PROPOSED OR	COMPLETED OPERATIONS. Clearly show a	U portinent details including dates	denthe valumes etc
The operator has co the subject well loo to expand and drill the	oncluded the temporary abarcation on 6/19/2014. This we he NBU 1022-4G Pad wells. In a pagical well history for details.	ndonment operations on II was plugged in order Please see the attached	Accepted by the Utah Division of
NAME (PLEASE PRINT) Matthew P Wold	PHONE NUMBI 720 929-6993	ER TITLE Regulatory Analyst I	
SIGNATURE N/A		DATE 6/24/2014	

				U	S ROCI	KIES RI	EGION	
				Opera	ition S	umma	ary Report	
Well: NBU 1022 Project: UTAH-L			Spud Co				Spud Date: 6/2	27/2010 Rig Name No: GWS 1/1
Event: ABANDONMENT Start D			Start Date	e: 6/17/20)14			End Date: 6/19/2014
Active Datum: R	RKB @5,080.00usfl	(above Mean S				D/S/22/E/	4/0/0/6/PM/N/1,8	63.00/E/0/1,882.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/17/2014	6:45 - 7:00	0.25	ABANDT	48		Р	(***)	HSM. ROAD RIG.
	7:00 - 11:30	4.50	ABANDT	30	G	Р		ROAD RIG F/BON 1023-17G MEGA PAD. SPOT RIG EQUIP.
	11:30 - 15:00	3.50	ABANDT	35	E	Р		MIRU MULTI SHOT SL. RUN GYRO F/ SURFACE T/ 8630'. STOP EVERY 100' IN & STOP EVERY 1000' OUT OF THE HOLE. RDMO MULTI SHOT. SDFN COULD NOT RU RIG (TOO WINDY)
	7:00 - 10:00	3.00	ABANDT	35		Р		Travel to location. Cut 200ft of line and rety rope socket. Rig up. Rih jar up on spring for 10mins @ 8123. pooh. Rig down. Ready for workover rig. Thank you.
6/18/2014	6:45 - 7:00	0.25	ABANDT	48		Р		HSM. PIINCH POINTS.
	7:00 - 8:30	1.50	ABANDT	30	Α	Р		RU RIG. WELL PSI 100 PSI. BLOW WELL DOWN T/ FBT. ND WH. NU BOP. RU RIG FLOOR & TBG EQUIP.
	8:30 - 12:30		ABANDT	45	A	Р		MIRU SCAN TECH. POOH SCAN 257 JTS 23/8 J-55. FOUND = 180 YB JTS 32 BB JTS 45 RB JTS. HEAVY INTERNAL PITTING F/ 2468' T/ 4399'. RDMO SCAN TECH.
	12:30 - 13:30	1.00	ABANDT	34	I	Р		MIRU CUTTERS WL. PU 41/2 8K HAL CBP. RIH SET CBP @ 6020'. POOH. RDMO CUTTERS WL.
	13:30 - 16:00	2.50	ABANDT	31	I	Р		PU 23/8 NOTCH COLLAR. RIH W/ 190 23/8 J-55 JTS. TAG PLUG @ 6020'. PUH 10'. FILL HOLE W/ 70 BBLS T-MAC. PSI TEST CSG 500 PSI. GOOD TEST. BLEED OFF PSI. SWIFN.
6/19/2014	6:45 - 7:00	0.25	ABANDT	48		Р		HSM. PINCH POINT.
	7:00 - 8:15	1.25	ABANDT	51	D	Р		OPEN WELL 0 PSI. MIRU PRO PETRO CMT CREW. PUMP 8 SX = 100' CLASS G CMT ON TOP OF CBP @ 6020'. TOC @ 5920'. POOH, LD 4 JTS. REV CMT T/ PIT W/ 25 BBLS T-MAC.
	8:15 - 9:00	0.75	ABANDT	31	I	Р		CONT POOH, LD 45 JTS. EOT @ 4466'. HOOK UP CMT CREW.
	9:00 - 9:45	0.75	ABANDT	51	D	Р		PUMP 16 SX CMT. 210' BALANCE PLUG F/ 4466' T/ 4256'. POOH W/ 9 JTS. REV CMT T/ PIT W/ 20 BBLS T-MAC. RDMO PRO PETRO CMT CREW.
	9:45 - 12:00	2.25	ABANDT	31	I	Р		CONT POOH LD 132 JT & NC. ND BOP. ND CSG HEAD. INSTALL NIGHT CAP. RD RIG. RACK OUT RIG EQUIP. ROAD RIG T/ NBU 1022-4H-3.
								GPS = ELEV 5068' 39.98012* -109.44225*

6/24/2014 2:56:09PM 1

Sundry Number: 64650 API Well Number: 43047401910000

	STATE OF UTAH		FORM 9
I	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for procurrent bottom-hole depth, IFOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-04GT		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047401910000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 7 3779 720 929-	9. FIELD and POOL or WILDCAT: 1NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1863 FNL 1882 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 04 Township: 10.0S Range: 22.0E Merio	lian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
6/30/2015	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:			
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
DRILLING REPORT	L TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
Report Date:	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
The NBU 1022-04 following a tem	COMPLETED OPERATIONS. Clearly show a GT well was returned to pro aporary abandonment. Pleas s summary report for details	oduction on 6/30/2015 e see the attached	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 07, 2015
NAME (PLEASE PRINT) Jennifer Thomas	PHONE NUMB 720 929-6808	ER TITLE Regulatory Specialist	
SIGNATURE N/A		DATE 7/6/2015	

Sundry Number: 64650 API Well Number: 43047401910000

						KIES RE	EGION I ry Report	
Well: NBU 1022-	-4GT		Spud Cor	nductor: 6	6/16/2010)	Spud date: 6/2	27/2010
Project: UTAH-UINTAH			Site: NBU	J 1022-40	G PAD			Rig name no.: ROCKY MOUNTAIN WELL SERVICE
Event: ABANDO	NMENT		Start date	: 5/27/20	15			End date: 6/25/2015
Active datum: RKB @5,080.00usft (above Mean Sea Level)				UWI: S\	N/NE/0/1	0/S/22/E/4	//0/0/6/PM/N/1,8	363.00/E/0/1,882.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
5/20/2015	7:00 -							REBUILD PROD FACILITIES TO RETURN WELL TO PRODUCTION
6/23/2015	7:00 - 7:15	0.25	ABANDT	48		Р		HSM, CIRCULATING WELL
	7:15 - 10:00	2.75	ABANDT	30	Α	Р		RESPOT CEMENT BLOCKS. MIIRU, N/D WELL HEAD, N/U BOPS, R/U TBG EQUIP,
	10:00 - 17:30	7.50	ABANDT	31	I	Р		P/U 3-7/8 MILL W/ POBS PKG, TALLEY AND P/U 2-3/8 P-110 TBG, TAG CEMENT @=4,300#, P/U POWER SWIVEL. PRESSURE TEST BOPS TO 3,000#, BREAK CIRC W/ RIG PUMP.C/O CEMENT FROM 4,300 TO 4,474' CIRC HOLE CLEAN SWIFN.
6/24/2015	7:00 - 7:15	0.25	ABANDT	48		Р		HSM, DRILLING OUT CEMENT
	7:15 - 13:30	6.25	ABANDT	44	Α	Р		SICP=0#, SITP=0#, OPEN WELL, HANG POWER SWIVEL BACK, CONTINUE TO RIH W/ TBG. TAG CEMENT @=5,915' P/U POWER SWIVEL, BREAK CIRC W/ RIG PUMP. C/O CEMENT TO CBP @=6,020'.
	13:30 - 17:00	3.50	ABANDT					MIRU WEATHERFORD NITROGEN UNIT, UNLOAD WELL, DRILL THROUGH HALIBURTON CBP @=6,020'. CONTINUE TO RIH TAG @=8,226, EST CIRC W/ NITROGEN, C/O TO 8,729' CIRC HOLE FOR 30 MIN, CONTROL TBG W/ 10 BBLS, R/D POWER SWIVEL. L/D 19 JNTS, POOH W/ 33 STANDS EOT @=6,025'. SWIFN.
6/25/2015	7:00 - 7:15	0.25	ABANDT	48		Р		HSM, KILLING WELL
	7:15 - 12:00	4.75	ABANDT	31	I	Р		SICP=100#, SITP=0#, BLOW WELL DOWN, CONTROL W/ 40 BBLS, POOH W/ TBG AND BHA, L/D POBS PKG, P/U PROFILE NOTCHED COLLAR [1.8 ID] RIH W/ 256 JNTS 2-3/8 P-110 TBG, AND LAND W/ EOT @=8,120.83'. R/D TBG EQUIP, N/D BOPS, N/U WELL HEAD. SHUT WELL IN TO LET BUILD PRESSURE. RDMO
								KB 18.00 HANGER .83 256 JNTS 2-3/8 P-110 TBG 8,099.80
								SEAT NIPPLE 1.50
								EOT @= 8,120.13

7/6/2015 4:58:33PM 1